Vol. XV, No. 2 February, 1941

PSYCHOLOGICAL ABSTRACTS

WALTER S. HUNTER, EDITOR
H. L. ANSBACHER, ASSISTANT EDITOR
BROWN UNIVERSITY

MAR 4 1941

WITH THE CO-OPERATION OF

F. C. BARTLETT, CAMBRIDGE UNIVERSITY
†ED. CLAPARÈDE, UNIVERSITY OF GENEVA
R. KURODA, KEIJO IMPERIAL UNIVERSITY
R. NIHARD, UNIVERSITY OF LIÉGE
V. OSIPOV, LENINGRAD
H. PIÉRON, SORBONNE
M. PONZO, UNIVERSITY OF ROME
P. RANSCHBURG, UNIVERSITY OF BUDAPEST
M. L. REYMERT, MOOSEHEART, ILL.
C. F. WU, ACADEMIA SINICA

CONTENTS

General (incl. Statistics) 617– 659
Nervous System 660– 705
Receptive and Perceptual Processes 706– 751
Learning, Conditioning, Intelligence (incl. Attention, Thought) 752– 778
Motor and Glandular Responses (incl. Emotion, Sleep) 779– 824
Psychoanalysis, Dreams, Hypnosis 825– 833
Functional Disorders 834– 916
Personality and Character 917– 932
General Social Processes (incl. Esthetics) 933– 977
Crime and Delinquency 978– 987
Industrial and Personnel Problems 988–1009
Educational Psychology (incl. Vocational Guidance) 1010–1082
Mental Tests 1083–1091
Childhood and Adolescence 1092–1131

PUBLISHED MONTHLY, WITH TWO ISSUES DURING DECEMBER, BY

THE AMERICAN PSYCHOLOGICAL ASSOCIATION, INC.

Prince and Lemon Streets, Lancaster, Pa.

Editorial Office: BROWN UNIVERSITY, PROVIDENCE, R. I.

Business Offices: PRINCE AND LEMON STREETS, LANCASTER, PA., AND NORTHWESTERN UNIVERSITY, EVANSTON, ILL.

Send changes of address to: Psychological Abstracts, Northwestern University, Evanston, Ill.

Subscription, $7.00 per year; Foreign, $7.25.

Entered as second-class matter July 12, 1937, at the post-office at Lancaster, Pa., under the Act of March 3, 1879

AUTHOR INDEX

Abbott, A. N., 617
Abernethy, E. M., 917
Adams, F. J., 1010
Adler, A., 909
Adler, F. H., 727
Agadjanian, K., 825
Alexander, F., 933
Alexander, G. H., 834
Alexandrov, V. V., 988
Alford, L. B., 835
Allen, F. H., 909
Allison, G., 1011
Allport, G. W., 918
Alpers, B. J., 660, 836
Anderson, A. C., 752
Anderson, H. D., 1012
Anderson, I. H., 1013
Andriola, J. P., 978
Angus, H. F., 934
Angyal, A., 837
[Anon.], 618, 1014, 1083
Arcan, T., 1015
Arenas y Loayza, C., 935
Argow, W. W., 979
Armstrong, H. G., 989
Ash, F. E., 897
Atkinson, T. G., 706
Auer, E. T., 838
Ayers, A. W., 707

Báez, C., 990
Bailey, P., 661, 662
Bainbridge, W. S., 839
Bair, H. L., 738
Baisden, L. B., 1016
Baker, E. M., 1092
Baranyai, E., 1084
Bárcza, E., 1093
Bard, P., 663
Barmack, J. E., 779, 811
Barnett, A., 1011
Barrera, S. E., 780, 873, 1120
Bartlett, F. C., 936
Bartley, S. H., 679
Baxter, B., 619
Beck, L. W., 620
Behnsen, G., 799
Belinky, A. R., 781
Bell, H. M., 1017, 1094
Benari, L., 919, 1018
Benda, C. E., 840
Bender, L., 841, 1095, 1126
Bennett, A. E., 842
Benton, A. L., 1085, 1096
Berdie, R., 621
Bergler, E., 843
Bergmann, G., 622
Bertine, E., 909
Bertocci, P. A., 782
Betts, E. A., 707, 1019
Bieber, I., 844
Biel, W. C., 783, 809
Bixler, H. H., 1020
Blackman, N., 837
Blair, E. A., 673
Blatt, N., 991
Blum, H. F., 708
Bobbit, R. A., 623
Boell, E. J., 664
Bordin, E., 949
Bordin, E. S., 1079
Börnstein, W. S., 709
Bourne, G., 845
Bowley, A. H., 1097
Boyer, G. F., 846
Bradshaw, W., 992
Brav, S. R., 937
Bray, C. W., 750, 751
Brickner, R. M., 665
Britt, S. H., 1098
Brogden, W. J., 753
Brogdon, E., 784, 797
Bromiley, R. G., 785
Brooks, C. M., 666, 667, 785
Brown, J. F., 847
Brown, M., 889
Bruce, F. A. K., 705
Brücke, E. T. v., 668
Brumbaugh, F., 1099
Bryan, H. S., 1100
Bullard, D. M., 826
Bunch, M. E., 806
Burkhard, W. J., 1016
Byrd, O. E., 1086

Calavrezo, C., 1037
Campbell, P. A., 993
Cannon, W. B., 786
Cano, A., 1036
Caplow, T., 938
Capurso, A. A., 920
Cathcart, J. P. S., 848
Cattell, R. B., 921
Cavell, R. W., 849
Center, S. S., 1021, 1022, 1023
Chassell, J., 909, 1024
Chesher, E. C., 1025
Clark, B., 787
Coakley, J. D., 669
Collins, D. A., 697
Colson, Z. W., 710
Conklin, A. M., 1026
Conlogue, E. F., 850
Conn, J. H., 1101
Conrad, K., 851
Copelman, L., 870
Corrin, K. M., 986
Cowley, W. H., 1027
Cox, W. B., 980
Crammatte, A. B., 1028
Crozier, W. J., 711, 712
Crum, M., 939
Culler, E. A., 669, 696
Cunningham, B. V., 940
Cupcea, S., 1029
Cureton, E. E., 1030
Curoe, P. R. V., 1031
Curtis, H. J., 670, 671
Curtis, W. B., 852

Dalrymple, G., 853
Dalzell, I. J., 1102
Daniels, G. E., 854
Darley, J. G., 922, 1032
Darrah, L., 855
Davidoff, E., 856
Davidson, P. E., 1012
Davis, F. B., 1087
Davis, P. A., 672
Davis, R. C., 788
Davis, T. E., 1033
Dean, R. B., 1103
Dearborn, W. F., 1013
Dennis, W., 897, 1104, 1105
Desmonts, M., 857
Diggs, M. H., 981
Disertori, B., 858
Dodge, A. F., 994
Doi, M., 859, 923
Doll, E. A., 860, 861
Dorcus, R. M., 995
Dunham, H. W., 941
Dunlap, K., 624
Durkin, H., 909
Dusser de Barenne, J. G., 661, 688

Early, M., 668
Eaton, M. T., 1070
Eberhart, J. C., 956
Eckert, W. J., 625
Ellson, D. G., 754
Emme, E. E., 942
Enzer, N., 789
Erlanger, J., 673
Evans, H., 862

Făcăoaru, M. P., 1034
Faris, R. E. L., 943
Farquhar, G. C., 1035
Fay, P. J., 944
Federn, P., 827
Felix, R., 626
Ferguson, G. A., 627
Ferguson, L. W., 818, 945
Fernandes, C., 982
Fernández, E., 1036
Ferree, C. E., 713
Fetterman, J. L., 863
Fick, G. N., 954
Finesinger, J. E., 881
Fitts, P. M., 755
Flanagan, J. C., 1080
Fletcher, E., 1003
Floru, C., 1037
Foerster, O., 864
Forbes, A., 668, 691, 702
Forbes, M. L. H., 628
Franke, F. E., 790
Frazier, E. T., 946
Freeman, G. L., 674, 791
Freeman, H., 692
Fries, C. C., 1038
Fröhlich, A., 675
Fromm-Reichmann, F., 629
Fry, G. A., 792
Fulton, J. F., 675, 693, 735, 748
Fusfeld, I. S., 714

Galambos, R., 702
Gammon, G. D., 686
Gantt, W. H., 756, 757, 763, 793
Garol, H. W., 661
Gasparrini, N., 947
Gengery, W. G., 1039
Georgiade, C., 865, 948
Geyer, H., 866
Gibbs, E. L., 676
Gibbs, F. A., 676
Gibian, R., 1040
Glaser, N. M., 883
Glen, J. S., 715
Glendy, R. E., 912
Goldstein, K., 630
Good, P., 716
Goodell, H., 795
Goppert, H. R., 1041
Gordon, K., 758
Gouch, J. A., 1035
Gray, W. S., 1042
Greenberg, R., 722
Grether, W. F., 747
Grimes, J. W., 949
Groves, E. R., 950
Grüneberg, H., 741
Guilford, J. P., 717
Gunthorp, J. M., 951
Gupta, M. K., 1043
Guttman, E., 882
Guyton, J. S., 794

Hackman, R. B., 718
Haines, H. F., 792
Hall, M., 996
Hallowell, A. I., 828
Hamill, R. C., 1106
Hampton, P., 924
Harding, G. T., 862
Hardy, J. D., 795
Hargrave, H., 1044
Hargreaves, J., 993
Harlow, H. T., 759
Harms, E., 952
Harrington, M., 867
Harrison, F., 677, 796
Harsh, C. M., 631
Hart, H., 925
Hartson, L. D., 953
Hathaway, S. R., 887, 926
Hay, E. N., 997
Hay, J. C., 719
Hebb, D. O., 678
Hecht, S., 720, 726
Heider, F., 1045
Heinbecker, P., 679
Held, O. C., 760
Hellebrandt, F. A., 784, 797
Hentig, H. v., 983
Heron, W. T., 771
Hertzman, A. B., 790
Hildreth, G. H., 1046, 1047, 1048
Hines, M., 680
Hinsey, J. C., 721
Hitz, J. B., 1049
Hoch, P., 856
Hockett, J. A., 954
Hoffmann, W. C., 757
Holbrook, C. S., 868
Holland, R., 761
Holt, J. B., 955
Horsfield, E., 869
Howard, A. H., 956
Howell, W. H., 632
Howie, D., 633
Hudgins, C. V., 1050
Hughes, J., 681, 687, 698, 817
Hughes, L. E. C., 652
Hursh, J. B., 682
Hutchison, A., 1107
Huxley, A. L., 957

Imai, Y., 958
Ionescu-Siseşti, N., 870

Jacobson, E., 798
Jaffe, A. J., 959
Janzen, R., 799
Jefferson, R. A., 871
Jones, H. E., 770, 1108
Jordan, H. M., 842
Judovich, B. D., 817
Julian, F. B., 872
Jung, F. T., 722
Jürgens, B., 683

Kallmann, F. J., 873
Kappauf, W. E., 740
Kasdon, S., 735
Katz, E., 1109
Katz, R., 1110
Kawaguti, I., 765
Keller, A. D., 800
Keller, F. S., 762
Kelly, E. L., 874
Kennard, M. A., 684, 801
Kerr, LeG., 1111
Kessler, M. M., 684
Kirschbaumer, L., 875
Kleitman, N., 723
Knapp, A., 829
Knower, F. H., 960
Kobayasi, S., 724
Koch, A., 876
Kornmüller, A. E., 685
Kraskin, L. H., 877
Krasno, L., 674
Kremsier, I., 1051
Kretschmer, —, 634
Krogman, W. M., 961
Krueger, F., 635
Kubie, L. S., 660
Kullbach, S., 636
Kupke, E., 998
Kusano, S., 878

Landreth, C., 1112
Langfeld, H. S., 637
Langford, W. S., 1113
Lawrence, M., 750, 751
Laycock, S. R., 1052
Lessa, W. A., 819
Leuba, C., 802
Leuthold, H., 879
Levine, A., 803
Levine, M., 880
Levy, D. M., 1114
Lewy, F. H., 686
Lim, K. T., 1115
Lindemann, E., 881
Linthicum, F. H., 804
Lloyd-Jones, E., 1052
Long, L., 776
Lowenbach, H., 763

Macht, D. I., 725, 805
Macht, M. B., 725, 805
Maclay, W. S., 882
Maeda, Y., 764
Maier, N. R. F., 883
Mandelbaum, J., 726
Mann, C. W., 962
Manuel, H. T., 884
Marañon, G., 927
Margineanu, N., 638
Margolin, S. K., 806
Margolis, A. K., 1054
Marshall, W. H., 700
Martin, D. R., 1088
Marui, K., 885
Marui, T., 886
Marulli, A., 999
Masaki, M., 765
Mauldin, W. P., 963
McComb, H. G., 1041, 1071
McCouch, G. P., 681, 687, 698
McCulloch, W. S., 661, 688
McDonald, R., 727
McGehee, W., 1000
McGeorge, J., 984
McGraw, M. B., 1116
McKinley, J. C., 887, 926
McNamara, W. J., 922
McNemar, Q., 639, 766
Meier, N. C., 1089
Melbo, I. R., 1117
Mendenhall, G. S., 1055
Meng, H., 827
Menninger, K. A., 847
Metfessel, M., 985
Mettler, F. A., 696
Metzger, H., 873
Meyer, E., 1118
Middletown, W. C., 944
Miller, E., 888
Miller, F. R., 689
Miller, H. R., 814
Minami, H., 728
Miyosi, M., 807
Mizzi, A., 640
Molteno, E. V., 921
Montpellier, G. de, 641
Mooney, R. L., 1056
Moore, A. D., 1001
Moore, B. V., 1002
Moore, H. E., 950
Moore, R. M., 695
Morant, G. M., 642
Morgan, C. T., 808
Morgan, J. D., 808
Morison, B. R., 691
Morse-Peckham, R., 729
Mote, F. A., Jr., 767
Mowrer, O. H., 768, 964
Muller, L. M., 1057
Murphy, J., 965

Nachmansohn, D., 664
Nathan, R., 730
Nelson, V., 1090
Nestor, I. M., 1119
Newman, H., 1003
Nicholls, J. V. V., 731

Odobleja, Ş., 643
Ogden, E., 649
O'Kelly, L. I., 783, 809
Oldberg, E., 820
Olson, W. C., 644, 1058
Oppenheimer, M. J., 814
O'Shea, H. E., 1059
Owen, E. B., 1000

Pacella, B. L., 780, 1120
Page, J. D., 1121
Paskind, H. A., 889
Paterson, D. G., 732, 1004
Pavlescu, V., 928
Payne, B. F., 1060
Pear, T. H., 645
Peatman, J. G., 1061
Peck, M. E., 666
Pendorf, W. M., 1062
Penfield, W., 678
Pennington, L. A., 1063
Perry, J. D., 1085
Persons, G. L., 1021, 1022, 1023
Petersen, W. F., 890
Phillips, R. A., 721
Pickford, R. W., 966
Pillsbury, W. B., 769
Pirenne, M. H., 720
Pitkin, W. B., 929
Pond, F. L., 1064
Popenoe, P., 967
Popescu, I., 891
Pressey, S. L., 646
Price, D. H., 1065
Pumphrey, R. J., 733
Purdilă, M., 1034
Purdy, A. B., 842
Quednau, H., 1005
Quinan, C., 1122

Rabin, A. I., 892
Rand, G., 713
Rathmell, T. K., 986
Raths, L., 1066
Reese, H. H., 890
Reeves, F. W., 1067
Reich, A., 893
Reid, I. De A., 968
Reik, T., 830
Reiser, O. L., 647
Rennie, T. A. C., 894
Renshaw, B., 690, 691
Reuter, E. B., 969
Rexroad, C. N., 930
Rhine, J. B., 831
Rich, G. J., 1123
Richards, T. W., 1090
Rigg, M. G., 970
Rioch, D. McK., 660
Roaf, H. E., 719
Roberts, J. A. F., 810
Roemer, H., 895
Rogers, C. R., 909
Rogers, J. D., 734
Róheim, G., 971
Rohrbaugh, L. H., 972
Rork, R., 797
Rosca, A., 896
Rosenzweig, S., 909
Roslow, S., 931
Rubin, M. A., 692
Rubenstein, H. S., 660
Ruch, T. C., 735
Russell, R. W., 897, 1105, 1124
Ryan, T. A., 736

Sahs, A. L., 693
Sanders, H., 1125
Sanford, G. A., 973
Saul, L. J., 832
Scala, N., 815
Scarff, J. E., 694
Schilder, P., 803, 1126
Schiller, P., 648
Schmidt, F., 1127
Schneider, F., 1068
Schneider, J., 974
Schreider, J., 723
Schröder, P., 898
Schumacher, J., 899
Schwing, G., 900
Seidenfeld, M. A., 901
Seitz, C. P., 811
Selfridge, G., 737
Selling, L. S., 1006
Semeonoff, B., 975
Semmelmeyer, M., 1069
Seward, J. P., 812
Seybold, W. D., 695
Shapiro, F., 771
Sheard, C., 738
Shelly, J. A., 980
Shock, N. W., 649, 770
Sigrist, E., 813
Silverberg, W. V., 976
Silverman, W., 771
Simonson, E., 789
Singer, C. I., 1007
Sjöqvist, O., 748
Skolnick, A., 775
Slight, D., 902
Sloan, L. L., 739
Smalldon, J. L., 903
Smith, C. G., 696
Smith, H. L., 1070
Smith, K. U., 740, 838
Snyder, F. F., 1115
Sorsby, A., 741
Spalding, M. A., 1095
Speer, G. S., 1128
Spiegel, E. A., 697, 742, 814, 815
Sprague, G. S., 904, 905
Springsteen, T., 906
Squier, T. L., 816
Starostuk, E. M., 743
Stavraky, G. W., 689
Steckle, L. C., 772
Steffens, L. F., 738
Sterba, R., 833
Stern, W., 1129
Stevason, C.
Stevens, R.
Stewart, W.
687, 698,
Stoddard, G.
Stone, C. P.,
Stone, E. H.,
Storey, R. T.,
Strobel, E. J.,
655, 656
Strode, J., 97
Strode, P. R.,
Sweet, W. H.,
Sylvester, A.
Sziteinberg, B.

Talbot, S. A.,
Taylor, F. V.,
Taylor, H. C.,
Therman, P.,
702
Thompson, M.
Thorndike, E.
Tiffin, J., 106
1071, 1074
Tildesley, M.
Tinker, M. A.,
1004
Tobino, M., 9
Toltzien, F.,
Traver, A. A.,
Tryon, R. C.,
Tucker, W.
Tumin, L., 8
Turner, W. D.,
Tuttle, P. M.,
Tweney, C. F.,

Ury, B., 820
Ushijima, Y.,

Van Allyn, K.,
[Various], 10
Vaughn, J., 6
655, 656
Verhoeff, F.

Waelder, R.,
Walker, A. E.,
Walti, A., 81
Ward, D. F.,
Warren, N. A.,
Watanabe, T.,
Watson, G., 9
Watson, J., 9
Watters, T. A.,
Wedell, C. H.,
Weinstein, E.
Weinstein, E.
Weiss, E., 91
Weiss, P., 82
Welch, B. L.,
Welch, L., 73
Wenrick, J. E.
Werner, C. F.
Werner, H.,
Wever, E. G.,
Wheeler, L. R.
White, J. C.,
White, P. D.,
Willey, R. 26
Willhite, F.
Williams, D.
Williamson, E.
1078, 1079
Wilson, F. A.
Wilson, F. T.,
Wittenborn, J.
Wittkower, E.
Wixted, W. G.,
Wolf, E., 71
Wolff, H. G.,
Wood, B. D.,
Woods, A. H.,
Woolsey, C. N.
Woonton, G.
Worchel, P.,
Wrenn, C. G.,
1082

Yamamura, K.
Yoder, D., 10
Young, P. T.,

Zerga, J. E.,
Zieve, L., 69
Zissulescu, S.,

LANCASTER PRESS, INC., LANCA

PSYCHOLOGICAL ABSTRACTS

VOL. XV, NO. 2 FEBRUARY, 1941

GENERAL

(incl. Statistics)

617. **Abbott, A. N. Low cost field charting.** *Amer. J. Optom.*, 1940, **17**, 414–419.—Specifications are given for an inexpensive homemade tangent screen, perimeter, and campimeter attachment with some suggestions regarding their use.—*M. R. Stoll* (American Optical Company).

618. [**Anon.**] **Harry L. Hollingworth.** *J. consult. Psychol.*, 1940, **4**, 201.—Portrait.

619. **Baxter, B. The application of factorial design to a psychological problem.** *Psychol. Rev.*, 1940, **47**, 494–500.—Factorial design was applied in an investigation of reaction time involving the factors of sensory modality, discrimination, and handedness as the response mechanism. By means of partial confounding of two of the higher order interactions, the number of combinations given to each subject was brought within the limits of a practical experimental period. This was further facilitated by arranging the combination for each individual into two period series and sacrificing one degree of freedom for an estimate of period-to-period variation. The structure for the analysis of variance for this design was presented. The need and methods of obtaining reliability were discussed and its application to this experiment described.—*A. G. Bills* (Cincinnati).

620. **Beck, L. W. The psychophysical as a pseudo-problem.** *J. Phil.*, 1940, **37**, 561–571.—The thesis is that the psychophysical problem is meaningless and unsolvable even within philosophy. In philosophy the 2 concepts in terms of which the psychophysical problem must be solved are mind as existence, meaning "a specific kind of being which fulfills all of the usual criteria of existence" and mind as reference, meaning "locus of intention or meaning." Discussion of the mind-body problem involves the former concept, and discussion of the subject-object relation involves the latter concept. A theory of the mind-body relation must not exclude a theory of the subject-object relation, and conversely. However, the postulates of epistemology which delimit discussion about the subject-object relation, such as the postulate of the independence of the observer, and the postulates of psychophysics which delimit discussion of the mind-body relation, such as the postulate of the determination of the subject, are in inevitable conflict. Consequently, "the question of the nature of the mind is meaningless because the 2 parts of the answer—it is involved in knowledge and it is existentially related in some way to the body—attribute contradictory properties to the mind."—*J. H. Jackson* (Boise, Idaho).

621. **Berdie, R. The field of applied psychology.** *J. appl. Psychol.*, 1940, **24**, 553–575.—The fields in which the applied psychologist works are described, and the training that is required in applied psychology and opportunities in the field are discussed. —*E. E. Ghiselli* (California).

622. **Bergmann, G. The subject matter of psychology.** *Phil. Sci.*, 1940, **7**, 415–433.—The doctrine of method expounded by Carnap, according to which a careful analysis of language is necessary to prevent entanglement in pseudo-problems, is applied to psychology. 3 different sublanguages are distinguished in the case of psychology. These are the *M*-language, the *B*-language, and the *P*-language. The first is used in dealing with mental phenomena, such as thoughts, wishes, perceptions, etc.; the second, in giving an account of overt behavior; while the third, which, unlike the others, is not especially devised for psychology, is necessary in describing the results of neuro-physiological research or of other experimental investigations on this level. These languages are still very imperfectly intertranslatable. Brain physics seeks to establish a *P*-to-*M* isomorphism, and reflexological research is mainly concerned with the relation *P*-to-*B*. *Verstehens-Psychologie* and psychoanalysis show the direction *M*-to-*B*. However, "in spite of the heuristic and directive value of the model isomorphisms proposed . . . in some recent approaches to psychology, almost everything has yet to be done for . . . a unification of the three languages of psychology."—*R. H. Dotterer* (Pennsylvania State College).

623. **Bobbit, R. A. A new apparatus for the Luria experiment.** *J. exp. Psychol.*, 1940, **27**, 578–582.—Detailed description with photographs of a new apparatus designed to fulfill the same basic purposes as that devised by Luria, namely the study of affect on the basis of certain motor manifestations. The present apparatus has the advantages of (1) permitting the subject and the experimenter to be situated in different rooms, and (2) of furnishing a record not merely of the onset of the verbal responses and its reaction-time, but of the form or structure of the response.—*H. W. Karn* (Pittsburgh).

624. **Dunlap, K. The method and problems of social psychology.** *Psychol. Rev.*, 1940, **47**, 471–485. —Beginnings of a truly independent science of social psychology, which is clearly differentiated from general psychology, have been made at various times in history, but have latterly been obscured by such false schools as the crowd mind school, the instinct school, the amorphous school, etc. Thomas Hobbes, in his political psychology, recognized the need for a social psychology concerned with the

group, *qua* group. Such a science would be distinguished from personal psychology (1) in its problems; (2) in its method, the comparative-historical method; (3) in its fundamental assumption, i.e., of the possibility of prediction for the group, rather than for the individual. Group prediction is more accurate. The laws of group behavior should be simpler than those of individual behavior. Every source of information, such as social anthropology, history, archeology, ethnology, philology, would be drawn upon in this comparative method. Its claim to a science would rest on its postulation of the operation of natural law, since it could not be an experimental science.—*A. G. Bills* (Cincinnati).

625. **Eckert, W. J. Punched card methods in scientific computation.** New York: T. J. Watson Astronomical Computing Bureau, 1940. Pp. ix + 136. $2.00.—The purpose of this book is to show the possibilities of the electric punched card method in scientific computation. It is designed to enable a scientist to formulate his problem so that any skilled operator of the machines can carry out the necessary computation. An introduction is followed by 7 chapters dealing with the punched card and the machines; general considerations of the punched card technique; the construction and use of special tables of tabular functions; interpolation, mechanical quadrature, and allied subjects; numerical harmonic analysis and synthesis; the multiplication of series; and the numerical solution of differential equations. The remaining 4 chapters discuss the application of the technique to astronomical problems.—*M. Keller* (Butler Hospital).

626. **Felix, R. Necrolog: Sigmund Freud.** (Necrology: Sigmund Freud.) *Anal. Psihol.*, 1939, **4**, 320–321.—*S. M. Strong* (Howard).

627. **Ferguson, G. A. A bi-factor analysis of reliability coefficients.** *Brit. J. Psychol.*, 1941, **31**, 172–182.—The intercorrelations between the split-halves of 3 group tests of intelligence given on different days are analyzed by Holzinger's bi-factor method, and factors of temporal contiguity are isolated and measured. The existence of these factors may be due to the absence of the influence of functional variability on the correlations between 2 tests given on the same day, or to the correlation of errors, or to both. The existence of these factors explains why reliability coefficients calculated by the split-half method, and boosted by the Spearman-Brown formula, are usually higher than those obtained by correlating parallel forms. The reduction of the number of factors to a minimum may in certain circumstances lead to meaningless factors, incompatible with a previously established psychological hypothesis. The fitting of a mathematical interpretation to a psychological hypothesis, rather than the converse, is the more valid scientific method.—*M. D. Vernon* (Cambridge, England).

628. **Forbes, M. L. H. A sliding frame for use in registering choice.** *J. genet. Psychol.*, 1940, **57**, 219–220.—*D. K. Spelt* (Mississippi).

629. **Fromm-Reichmann, F. In memoriam: Gertrud Jacob 1893–1940.** *Psychoanal. Quart.*, 1940, **9**, 546–548.—A brief outline of her life is given, and tribute is paid to her accomplishments in the field of psychiatry and psychoanalysis, and particularly to her artistic ability as displayed in the portraits she painted of psychotic patients. One of these, entitled Melancholia, is reproduced.—*M. H. Erickson* (Eloise Hospital).

630. **Goldstein, K. Human nature in the light of psychopathology.** Cambridge, Mass.: Harvard Univ. Press, 1940. Pp. x + 258. $2.50.—In these William James Lectures, 1937–38, the author discusses the Gestalt or holistic versus the analytic method and emphasizes the importance of each. "The analytic scientific approach remains the only one by means of which phenomena can be discovered in a systematic way." Proceeding then to elaborate the nature of man from the standpoint of a psychopathologist, 3 particular characteristics are emphasized: the inability of the mentally sick to grasp the abstract and thus free themselves from concrete situations; the occurrence of anxiety as the subjective experience that the organism's existence is in danger with the possible consequent arousal of fear, which comes from the possibility of the onset of anxiety; and the basic drive of self actualization, the various individual drives usually assumed being "special reactions in special situations, and [representing] the various forms by which the organism expresses itself." The chapter headings are as follows: the holistic approach and the analytic method in science; pathology and the nature of man; the abstract attitude and speech; ordered and catastrophic behavior, anxiety and fear; coming to terms with the world; on the motives actuating human behavior; on the structure of personality; the individual and others; and the fallacy of isolation in social philosophy.—*W. S. Hunter* (Brown).

631. **Harsh, C. M. Constancy and variation in patterns of factor loadings.** *J. educ. Psychol.*, 1940, **31**, 335–359.—Evidence is given that a factor loading usually will vary less than the correlation coefficient from which it is calculated. More flexible applications of factorial methods are recommended.—*R. M. Bellows* (Maryland).

632. **Howell, W. H. Physiology.** (14th ed.) Philadelphia: Saunders, 1940. Pp. 1117. $7.50.

633. **Howie, D. The problem of analysis in psychology.** *Aust. J. Psychol. Phil.*, 1940, **18**, 131–143.—Analysis of some sort is essential to the science of psychology. Totalistic protests, while largely justified, mean chiefly that some other kind of analysis than that which prevails at the time, is needed. Throughout the history of associationism there have been analytical difficulties implying tacit recognition of the point of view of totality. This is clearly revealed in the position of Wundt. Perhaps the chief trouble with analytical procedures has been their tendency to claim too much by seeking to go deeper than the descriptive level. McDougall's and Spearman's elements, for instance, seem ad-

mirable in many ways until they are given an illicit causative status. Some procedures, such as existentialism, remained consistent by narrowing their territory, and so became less useful. Psychology should be content with its descriptive status while it remains in its present stage.—*H. D. Spoerl* (American International College).

634. **Kretschmer, —. Eugen Bleuler.** *Arch. Psychiat. Nervenkr.*, 1940, **111**, 1–4.—A biographic sketch of Bleuler with an evaluation and appreciation of his work. Full-page portrait.—*M. E. Morse* (Baltimore).

635. **Krueger, F. Psihologia evolutivă a întregului.** (The evolutionary psychology of totality.) *Rev. Psihol.*, 1939, **2**, 333–363.—[Abstracted review; original not seen.] The author deals with the concepts of real and ideal totality and the experience of totality. Totality imposes itself on our life and may be identified whenever we feel unity and harmony in our emotions. This identification is only possible through a close connection between the individual's structural nature and his values. The essential problem of inner life consists of a comparative description and analysis of emotions and their functional attributes, because the deep stratum of psychic life is of an emotional character, and emotions produce the quality of ensemble in experiencing totality.—*S. M. Strong* (Howard).

636. **Kullbach, S. Note on a matching problem.** *Ann. math. Statist.*, 1939, **10**, 77–80.—This paper discusses the distribution of the number of correct matchings in the situation in which two sequences are placed in correspondence when single elements are drawn from each of two infinite sources in turn. The distribution of the number of correct matchings will, in general, be that of a Poisson series and in special cases be binomial. The theory is illustrated by an experiment which yielded results in satisfactory agreement with it.—*S. B. Sells* (Brooklyn College).

637. **Langfeld, H. S. Professor McDougall's contributions to the science of psychology.** *Brit. J. Psychol.*, 1940, **31**, 107–114.—McDougall's work on sensation, on the psycho-physical processes in visual and auditory phenomena, and on attention, as well as his drainage theory, are described.—*M. D. Vernon* (Cambridge, England).

638. **Margineanu, N. Intreg şi parte.** (The whole and the part.) *Rev. Psihol.*, 1939, **2**, 378–391.—[Abstracted review; original not seen.] The author places himself among those numerous psychologists who believe that summation as well as configuration yield significant results. There are no absolute elements with independent attributes, but relative elements, so that the same reality can be an element and a whole. Perception, for example, is a whole from the standpoint of sensations but an element from the standpoint of consciousness. The summation and configuration methods should be viewed as complementary and be coordinated.—*S. M. Strong* (Howard).

639. **McNemar, Q. Sampling in psychological research.** *Psychol. Bull.*, 1940, **37**, 331–365.—This paper considers the available sampling techniques and possible checks on representativeness, and evaluates the ways by which greater precision in statistical results in either field or experimental studies can be obtained. The logical and statistical foundations of sampling procedure and some of its difficulties are discussed with illustrations from contemporary research. After a presentation of the methods of sampling called accidental, random, and purposive, it is shown that a method of stratified sampling increases the precision of observations and reduces the possibility of sampling bias. The special modifications of statistical formulae needed for the evaluation of results obtained by stratified sampling in field or experimental studies are presented and their implications exhibited. The function of the single case in empirical generalizations is briefly stated. 56 references.—*A. W. Melton* (Missouri).

640. **Mizzi, A. Cronografo automatico M-G. Un nuovo apparecchio registratore dei tempi di reazione.** (M-G automatic chronograph. A new apparatus for reaction time recording.) *Rass. Med. Lav. industr.*, 1939, **10**, 36–47.—[Abstracted review; original not seen.] A description, with illustrations, of the author's apparatus for stimulation and automatic graphic registration of reaction times. The apparatus is particularly adapted to psychotechnical research.—*M. E. Morse* (Baltimore).

641. **Montpellier, G. de. Psychologie.** (Psychology.) *Rev. néo-scolast. Phil.*, 1940, No. 65.

642. **Morant, G. M., & Welch, B. L. A bibliography of the statistical and other writings of Karl Pearson.** London: Biometrika Office, University of London, 1939. Pp. viii + 119. 6*s*.—[Abstracted review; original not seen.] In this annotated list of Pearson's writings 648 titles are presented in chronological order, have been classified into 5 sections, and have been provided with a subject index. A 6th section contains a list of the places of publication of various series of lectures. The inclusion of prefaces, notes, and reviews make this bibliography complete. —*O. W. Richards* (Spencer Lens Company).

643. **Odobleja, S. Psychologie consonantiste.** (A unified psychology.) Paris: 1938. 2 vol. Pp. 880.—[Abstracted review; original not seen.] According to the author's classification psychology may be viewed conceptually integrated as follows: (1) animistic psychology, finalistic and rational; (2) materialistic psychology, causative and empirical, (a) deterministic-causative, physio-chemical, (b) total physicism, dynamic and harmonious psychology as formulated by Sollier, Clemenceau, and Odobleja. Psychology is thus considered as the science which studies the mental fact as an internal perception of physical phenomena. The author recommends study of the psyche (1) as such, isolated in space and time, (a) through introspection, (b) through scrutinizing its intrinsic elements (likenesses and differences); (2) in relation and comparison with its causes and effects. The psyche is thus

studied in its two aspects: static and dynamic. The static psyche consists of the senses, memory, and organs of reaction; the dynamic psyche, being a multiplicity (a dynamic process) is studied analytically. The conclusion stresses the fact that not only the psyche is integrated; the organs of the body are interrelated as well, through direct and reciprocal relations, and do not depend exclusively on the brain.—*S. M. Strong* (Howard).

644. **Olson, W. C. Proceedings of the forty-eighth annual meeting of the American Psychological Association, Inc., Pennsylvania State College, September 4, 5, 6, 7, 1940: report of the secretary.** *Psychol. Bull.*, 1940, **37**, 699–741.

645. **Pear, T. H. The 'trivial' and 'popular' in psychology.** *Brit. J. Psychol.*, 1940, **31**, 115–128.—During the last 20 years, many psychologists in England and America have avoided the trivial and popular so consistently that their studies are rapidly veering away from many valuable contacts with real life. In eschewing so-called triviality they have created, developed, and upheld categories of academic triviality which threaten to become vested interests. Avoidance of popularity, either as persons, speakers, or writers, with the common people, is often linked with a fear of unpopularity with the ruling powers of science, especially of the physical sciences. These tendencies threaten to dehumanize, emasculate, and stultify psychology in general.—*M. D. Vernon* (Cambridge, England).

646. **Pressey, S. L. Fundamentalism, isolationism, and biological pedantry versus socio-cultural orientation in psychology.** *J. gen. Psychol.*, 1940, **23**, 393–399.—There is a demand that psychology provide an explicit and rounded study of adult life, including sociological, economic, political, and racial factors. A general psychology textbook and a text stressing the genetic approach, examined by the author, gave very little attention to the problems for which solutions are being demanded of psychology. Psychology is shirking its responsibilities because of the conservative prejudice which influences its development. Several examples of psychology's loss of influence as a consequence of this conservatism are cited.—*C. N. Cofer* (U. S. Employment Service).

647. **Reiser, O. L. The promise of scientific humanism.** New York: Oskar Piest, 1940. Pp. xviii + 364. $4.00.—Primitive logic (Lévy-Bruhl) was followed by Aristotelian logic, and the Aristotelian concepts and laws of thought have hampered men's thinking in all branches of knowledge. Evidence that a non-Aristotelian form of thinking is required, and is developing, is found in modern physics, recent biology, Korzybski's semantics, Gestalt psychology, etc. The world's pressing social problems cannot be successfully handled in Aristotelian forms. Elementarism should be replaced by organismic conceptions: primacy of whole over part, field theory, relativity, etc. Human evolution is still occurring under cosmic influences and will probably produce better ability to think in the new forms. Society has the essential form of an organism; super-individual consciousness occurs; extrasensory perception is quite conceivable. "The human race is the cortex of the entire living and evolving earth organism, and as soon as the embryo reaches maturity the world mind will be attained."—*C. H. Toll* (Amherst).

648. **Schiller, P. Psychology and physiology.** *J. gen. Psychol.*, 1940, **23**, 329–341.—Tolman's conception of physiological activity as parallel to psychological behavior (see XII: 3816) is examined and the following points are made: (1) "Behavior should be regarded as an inclusive hierarchy of physiological activities." (2) Psychology, in including social and cultural influences, is more inclusive than physiology but is also more specific, since it deals with the organization of elements. (3) Groups have a sociology, individuals a psychology, and organs a physiology, so that the relationships among these sciences are hierarchical not parallel. (4) Tolman's independent psychological variables have independent physiological variables as parts. (5) Intervening physiological variables need not be introduced. (6) Physiological correlates can be presumed only for behavior-parts, not for inclusive behavior patterns such as the dependent variables. (7) Physiological or biological units "are parts of behavior, neglecting their means-end functions. Considering, however, the hierarchy of their role in a means-end relationship, problems, independent of physiology as well as of sociology, arise."—*C. N. Cofer* (U. S. Employment Service).

649. **Shock, N. W., Ogden, E., & Tuttle, P. M. Apparatus for measuring oxygen consumption in human subjects at rest and after exercise.** *Child Develpm.*, 1940, **11**, 189–201.—"An apparatus is described for obtaining continuous samples of expired air at rest or after exercise and for measuring respiratory volume. An ergometer is described which can be used for the performance of variable measured amounts of arm work by a subject in the supine position. A calibration curve for the ergometer is presented. Sample records obtained with the apparatus are shown."—*C. N. Cofer* (U. S. Employment Service).

650. **Tildesley, M. L. Extent to which the grouping of the data affects the accuracy of mean value.** *Man*, 1940, **40**, 132–136.—The general practice of grouping frequency data raises the question of the proper number of classes to be used, with divergent counsels from statisticians. An experiment was carried out to ascertain the effect on the mean of various groupings. 1000 cards were divided into 31 groups corresponding in size to successive areas of the normal curve when divided into 29 columns and 2 equal tails. Each card was marked with the standard deviation distance from the mean of the mid-ordinate of the corresponding section. The cards were then well-shuffled and 150 samples of 100 cards each were drawn, all cards being returned to the pack and reshuffled after each drawing. The mean and standard deviations were then calculated

in different ways, the size of classes varying or the position of the points of division relative to the mean. The cards were shown to be not biased. It was found that the variability of the sample means increases with an increase in class size, but that the increase is less if the class limits are fixed in relation to one end of the sample's range rather than where they are determined by a point fixed in relation to the distribution from which it is drawn.—*M. D. Bown* (Columbia).

651. **Turner, W. D. A method for the analysis and interpretation of intra-group changes in measurements.** *J. gen. Psychol.*, 1940, **23**, 343–365.—"A method is outlined for the analysis of group data, which provides measures of four salient aspects of the *pattern* of group score change between successive measurements of groups of individuals originally heterogeneous with respect to the variable measured." The statistics used are defined and discussed, and some sample data are analyzed by the method to show its usefulness and limitations for the purposes for which it was designed.—*C. N. Cofer* (U. S. Employment Service).

652. **Tweney, C. F., & Hughes, L. E. C. [Eds.] Chambers's technical dictionary; comprising terms used in pure and applied science, medicine, the chief manufacturing industries, engineering, construction, the mechanic trades; with definitions by recognized authorities.** New York: Macmillan, 1940. Pp. 957. $5.00.

653. **Vaughn, J., & Strobel, E. J. An inexpensive chronograph.** *J. gen. Psychol.*, 1940, **23**, 437.—*C. N. Cofer* (U. S. Employment Service).

654. **Vaughn, J., & Strobel, E. J. An electric pulse recorder.** *J. gen. Psychol.*, 1940, **23**, 439–440. —*C. N. Cofer* (U. S. Employment Service).

655. **Vaughn, J., & Strobel, E. J. A carbon contact voice key.** *J. gen. Psychol.*, 1940, **23**, 441–442.—*C. N. Cofer* (U. S. Employment Service).

656. **Vaughn, J., & Strobel, E. J. A colored light exposure apparatus.** *J. gen. Psychol.*, 1940, **23**, 443–444.—*C. N. Cofer* (U. S. Employment Service).

657. **Watanabe, T. Honbô saisho no keikenteki shinrigakusha toshiteno Kamada Hô no kenkyû.** (Studies on Hô Kamada as a founder of Japanese empirical psychology.) Tokyo: Chukokan, 1940. Pp. vi + 438. Yen 5.50.—This book deals with the development of Japanese psychology, the Japanese pronunciation of Kamada's name, his geneology, friends, and works, the school to which he belongs, his students, psychology, philosophy, religion, ethics, etc.—*R. Kuroda* (Keijo).

658. **Wheeler, L. R. Vitalism: its history and validity.** London: H. F. and G. Witherby, 1939. Pp. xii + 275. 15*s*.—[Abstracted review; original not seen.] Contributions to the philosophy of vitalism from Aristotle and Galen to Jeans and Edington are expounded. The sporadic attempts to overthrow the theory are discussed, but the first serious challenge was the publication of Darwin's *Origin*. An exhaustive index is included.—*O. W. Richards* (Spencer Lens Company).

659. **Zieve, L. Note on the correlation of initial scores with gains.** *J. educ. Psychol.*, 1940, **31**, 391–394.—Use of the ordinary product-moment formula results in a spurious obtained correlation coefficient when initial scores and gains are correlated. The obtained coefficient is lower than the true one. A correction formula is offered.—*R. M. Bellows* (Maryland).

NERVOUS SYSTEM

660. **Alpers, B. J. Personality and emotional disorders associated with hypothalamic lesions.** *Res. Publ. Ass. nerv. ment. Dis.*, 1940, **20**, 725–752.—The author reviews only experimental and clinical material which is accompanied by autopsy material. The conclusions drawn are: "The data serve only to point to the fact that the hypothalamus is one of a series of stations concerned with the emotions principally and intellect and personality incidently. Its functions are correlated with the cortex, thalamus, and probably lower areas as well. How dominant is its role cannot yet be ascertained. It seems safe to say however that when released from cortical control, or from conscious or subconscious inhibitions, it is capable of giving rise to primitive emotional reactions in animals and to similar reactions in man, as well as to coarseness and a lack of appreciation of social niceties. In this sense then the hypothalamus may be regarded as an area concerned with the expression of emotional reactions which are ordinarily sifted and weighed by the cerebral cortex which exercises an inhibitory influence over such reactions as a rule." There is appended a brief discussion by D. McK. Rioch, L. S. Kubie, and H. S. Rubinstein.—*W. S. Hunter* (Brown).

661. **Bailey, P., Dusser de Barenne, J. G., Garol, H. W., & McCulloch, W. S. Sensory cortex of the chimpanzee.** *Amer. J. Physiol.*, 1940, **129**, 303.—Abstract.

662. **Bailey, P., & Sweet, W. H. Effects on respiration, blood pressure, and gastric motility of stimulation of orbital surface of frontal lobe.** *J. Neurophysiol.*, 1940, **3**, 276–281.—Electrical stimulation of the orbital surface of the frontal lobe (gyrus orbitalis) produced inhibition of respiration, a rise of blood pressure, and a decrease in tone of gastric musculature in both cats and monkeys. The effects were most clearly demonstrated in monkeys.—*D. B. Lindsley* (Brown).

663. **Bard, P. The hypothalamus and sexual behavior.** *Res. Publ. Ass. nerv. ment. Dis.*, 1940, **20**, 551–579.—This is a critical review of the topic, including some unpublished work. Although the full pattern of mating behavior can be elicited in some species after decortication, the presence of the cerebral cortex in any mammal "greatly increases the number of circumstances which are able to modify the occurrence of sexual behavior." "The effects of brain stem lesions, which involve this division of the diencephalon, indicate that it may exert an influence on the capacity of female cats to display sexual excitement."—*W. S. Hunter* (Brown).

664. **Boell, E. J., & Nachmansohn, D. Localization of choline esterase in nerve fibres.** *Science*, 1940, **92**, 513–514.—Experimental work upon the giant fibres of the squid offers evidence for the high concentration of choline esterase at or near the surface of the nerve cell, suggesting that the activity of the cell everywhere about the surface is connected with the metabolism of acetylcholine and that the phenomenon is only quantitatively more important at synapses. This explains some of the findings of Lorente de Nó and is compatible with the conclusion of Erlanger and Gasser that conduction of nerve impulses along nerve fibres and across synapses differs only quantitatively.—*F. A. Mote, Jr.* (Connecticut).

665. **Brickner, R. M. A human cortical area producing repetitive phenomena when stimulated.** *J. Neurophysiol.*, 1940, **3**, 128–130.—During the electrical exploration of the cortex of a convulsive patient an area was discovered which, when stimulated, produced perseveration of speech. This area (area X) was on the mesial side of the left hemisphere in area 6, probably near the posterior part of area 32, and 8.5 cm. away from Broca's area. While under local anesthesia, the patient said the alphabet. The letter being said at the moment of stimulation was repeated throughout the duration of the stimulus. Perseveration ceased instantly with cessation of the stimulus. Although aware of her behavior the patient was unable to check herself. It is suggested that the explanation of such a performance may lie in circuit reactivation.—*C. E. Henry* (Brown).

666. **Brooks, C. M., & Peck, M. E. Effect of various cortical lesions on development of placing and hopping reactions in rats.** *J. Neurophysiol.*, 1940, **3**, 66–73.—Removal of the sensorimotor area of the cortex in 1–5 day old rats permanently abolishes placing and hopping reactions. Small lesions in foreleg or hindleg areas produce permanent deficiencies of postural reactions. Hence a study of placing and hopping reactions is valuable in determining the position and extent of lesions. From this study it appears that the placing and hopping reactions are strictly localized to the sensorimotor cortex, but that there is some sub-division of function within the area. Since lesions produced at birth abolished the postural reactions and the animals never showed any signs of regaining them, it appears that no other region of the cortex or subcortical region is able to take over the placing and hopping functions.—*D. B. Lindsley* (Brown).

667. **Brooks, C. M., & Woolsey, C. N. Placing and hopping reactions in relation to the electrically excitable "motor" areas of the cerebral cortex of the rabbit.** *Johns. Hopk. Hosp. Bull.*, 1940, **67**, 41–60.—Following unilateral ablation of those areas of the rabbit cortex shown to control striate muscle function upon electrical stimulation, contralateral tactile placing responses were enduringly abolished, and the hopping reactions were rendered deficient, both in the fore- and hindlimbs. They were not affected by lesions outside this area. Similar deficiencies were observed after unilateral pyramidal section.—*W. J. Brogden* (Wisconsin).

668. **Brücke, E. T. v., Forbes, A., & Early, M. The effect of prolonged stimulation on the relative refractory period in the nerve.** *Amer. J. Physiol.*, 1940, **129**, 322.—Abstract.

669. **Coakley, J. D., & Culler, E. Distribution of auditory action-potentials in the medial geniculate body of the cat.** *Amer. J. Physiol.*, 1940, **129**, 335–336.—Abstract.

670. **Curtis, H. J. Intercortical connections of corpus callosum as indicated by evoked potentials.** *J. Neurophysiol.*, 1940, **3**, 407–413.—Single shock stimulation to various points of the cortex of cats and monkeys produce electrical responses in one or more localized points on the contralateral cortex. These responses are abolished by section of the corpus callosum. The largest responses are obtained from those contralateral points which are symmetrically located with respect to the stimulated point. In cats all regions showed responses to contralateral symmetrical point stimulation, but in the monkey area 17 of the occipital lobe did not. Localized stimulation of a point in a certain area may produce potentials over a considerable portion of the corresponding contralateral area and sometimes in other contralateral areas. The responses are believed to be mediated by direct callosal fibers rather than intracortical spread since lesions circumscribing a responsive area do not abolish the response, although callosal section does. The responses may be evoked in either hemisphere by callosal stimulation. Maps of the points on one hemisphere in both cats and monkeys which on localized stimulation cause the most prominent evoked potentials in contralateral regions are presented.—*D. B. Lindsley* (Brown).

671. **Curtis, H. J. An analysis of cortical potentials mediated by the corpus callosum.** *J. Neurophysiol.*, 1940, **3**, 414–422.—Electric shocks applied to the cortex of one hemisphere are transmitted by means of callosal fibers to certain points on the cortex of the contralateral hemisphere. The response recorded from the contralateral region is diphasic and consists of a surface positive and a surface negative component. Using microelectrodes, inserted at the point of origin of the response, and narcotic and convulsant drugs applied to the surface of the responding area it has been possible to separate and study the two phases of the response. With a convulsant drug, such as picrotoxin or metrazol, the negative component is greatly increased and the positive component slightly increased. An anesthetic drug such as nembutal leaves the positive wave but abolishes the negative wave. The reversal of potential effects, under these conditions, as the microelectrode is pushed through the cortex into the white matter or when it is drawn out and reaches the upper layers of the cortex, leads to the conclusion that ascending fibers from the callosum ramify in the upper layers and end in the first layer of the cortex; also that synaptic connec-

tion is made in the outer layer with descending interneurons. The ascending fibers are thought to give rise to the surface positive wave; the descending fibers to the negative component.—*D. B. Lindsley* (Brown).

672. **Davis, P. A. Development of electroencephalography: retrospect and outlook.** *Amer. J. Orthopsychiat.*, 1940, **10,** 710–719.—This is an historical and evaluative discussion of electroencephalography together with a brief indication of the author's 4 year research with patients at the Institute for Psychoanalysis in Chicago. The correlation between brain waves and personality has been tested by predicting from psychoanalytic data the type of EEG a person would have, and likewise by predicting from EEG records who were the clearly passive dependent and who the active independent individuals.—*R. E. Perl* (Jewish Board of Guardians).

673. **Erlanger, J., & Blair, E. A. Facilitation and difficilitation effected by nerve impulses in peripheral fibers.** *J. Neurophysiol.*, 1940, **3,** 107–127.—An artificial synapse created by anodal polarization was used to study the phenomena of facilitation and difficilitation, the latter of which is probably identical with extinction. The facilitating action of spikes at such a point increases with their number and frequency. Because of the supernormality of a fiber following a response, every spike following the first one to pass the block will also get through. When such conduction has been established (by facilitation), the interruption of this conditioning tetanus results in difficilitation, or the failure of conduction when the tetanus is resumed. Optimum periods of interruption were for these specific conditions between 0.5 and 0.6 sec. The failure of conduction (difficilitation) persisted through at least 43 sec., the limits of observation used; but the interruption of the second tetanus for 6 sec. permitted the block to disappear. Difficilitation, at least in its early stages, is regarded as a manifestation of the subnormal phase of the excitability cycle in the postfiber.—*C. E. Henry* (Brown).

674. **Freeman, G. L., & Krasno, L. Inhibitory functions of the corpus striatum.** *Arch. Neurol. Psychiat., Chicago,* 1940, **43,** 323–327.—Electrical stimulation of the caudate nucleus in the cat inhibits spontaneous movements of the skeletal muscles, probably induced by the corticospinal system. The effect is more pronounced on the ipsilateral side. Stimulation of the caudate nucleus also inhibits bladder tone and tends to reduce respiration and activity of the sweat glands. Little evidence was found for the somatic localization of these effects within the corpus striatum.—*W. J. Brogden* (Wisconsin).

675. **Fulton, J. F. [Ed.] The hypothalamus and central levels of autonomic function.** *Res. Publ. Ass. nerv. ment. Dis.*, 1940, **20,** xxx + 980.—This volume includes a historical summary by J. F. Fulton, a reprint of A. Fröhlich's paper on "A case of tumor in the hypophysis cerebri without agromegalie," and 3 sections dealing with anatomy, physiology, and clinical problems. Bibliography of 68 pages.—*W. S. Hunter* (Brown).

676. **Gibbs, F. A., Williams, D., & Gibbs, E. L. Modification of the cortical frequency spectrum by changes in CO_2, blood sugar, and O_2.** *J. Neurophysiol.*, 1940, **3,** 49–58.—The energy distribution in the various frequency bands of the electroencephalogram were studied by means of the Grass frequency analyzer. The constituents of the blood, taken as the best approximation to cortical conditions, were analyzed from samples obtained from the internal jugular vein. In 4 subjects a decrease in CO_2, produced by overventilation, caused a shift of energy in the EEG to the lower frequency bands; an increase in CO_2 had the reverse effect. Extremely high or low fluctuations of the CO_2 concentration had less effect on the EEG than more moderate changes. In 3 subjects low O_2 was studied; it caused a shift of energy to low frequency only when a level of 40% saturation was reached. High O_2 was studied in rabbits and had little effect until a pressure of approximately 35 pounds to the square inch was reached, when a shift of energy to high frequency occurred. When the blood sugar level fell to 30 mgm. per 100 cc. there was a sudden shift of energy to the low end of the spectrum; at 500 mgm. there was a sudden shift to the high end. The nature of the shifts leads the authors to discuss the possibility that the electrical activity of the cortex is a representation of the activity of a great number of chemical oscillators with different natural periods.—*D. B. Lindsley* (Brown).

677. **Harrison, F. The hypothalamus and sleep.** *Res. Publ. Ass. nerv. ment. Dis.*, 1940, **20,** 635–656.—The author draws the following conclusions from a critical review of the subject: "1. Hypersomnia is likely to result from depression of hypothalamic function, whether by tumors, electrolytic lesions or chemical agents. 2. Excitement or increased activity of the subject usually results from increased hypothalamic activity, whether due to mechanical, electrical or chemical stimulation. 3. Normal sleep seems to be closely associated with a decreased activity of the hypothalamus. 4. Evidence does not support the view that sleep is an active inhibition of one part of the brain by another."—*W. S. Hunter* (Brown).

678. **Hebb, D. O., & Penfield, W. Human behavior after extensive bilateral removal from the frontal lobes.** *Arch. Neurol. Psychiat., Chicago,* 1940, **43,** 421–438.—Both clinical and psychometric post-operative data showed a marked improvement over the pre-operative data. This improvement fails to support the view that injury to the frontal lobes results in intellectual deterioration and personality changes. The significance of these data for the study of frontal lobe function is discussed.—*W. J. Brogden* (Wisconsin).

679. **Heinbecker, P., & Bartley, S. H. Action of ether and nembutal on the nervous system.** *J. Neurophysiol.*, 1940, **3,** 219–236.—The effect of

ether and nembutal have been studied in connection with axon, ganglion cell, spinal cord, and cortical potentials. In the axon both ether and nembutal decrease the amplitude and area of the axon spike potential; they raise the electrical threshold, reduce the conduction rate, and prolong the absolute refractory period of the axon. Ether increases accommodation in the axon, but nembutal decreases it slightly. Both block conduction at the synapse in a peripheral ganglion. The period of temporal summation and the period of recruitment at the synapse are shortened by both anesthetics in proportion to their reduction of the amplitude and area of the cortical response, which from this and other studies has been associated with a rhythmic excitatory cycle. The frequency of spontaneously discharging nerve cells is increased by ether and decreased by nembutal. The first effects of both drugs on amplitude of the spontaneous activity is to increase and later decrease it. In general the action of ether on a nerve cell or group of cells is first one of stimulation and then depression of excitation and response mechanisms. The stimulating action of nembutal is not so marked but the duration of the cell response and the length of time required for the recovery of responsiveness are longer. A discussion of the mechanisms of excitation and inhibition in neurons as derived from this and other studies from the same laboratory is presented.—*D. B. Lindsley* (Brown).

680. **Hines, M. Movements elicited from precentral gyrus of adult chimpanzees by stimulation with sine wave currents.** *J. Neurophysiol.*, 1940, **3**, 442–466.—This study reports the detailed observations during stimulation and mapping of the precentral gyri of 3 adult chimpanzees. The optimum frequency of sinusoidal current used for stimulation was 90 cycles per second.—*D. B. Lindsley* (Brown).

681. **Hughes, J., McGouch, G. P., & Stewart, W. B. Cord potentials in spinal shock: multiple stimuli.** *J. Neurophysiol.*, 1940, **3**, 146–150.—"In the spinal *Macaca mulatta* monkey, inhibition of the internuncial response to the second of two volleys to an afferent nerve is contingent upon the presence of a positive wave in the preceeding cord potential." Repetitive stimulation adds but little positivity and suggests that the sources of positivity and negativity are from different perikaryal origins. In the chronic monkey reflex depression appears to persist at the motoneurones.—*C. E. Henry* (Brown).

682. **Hursh, J. B. Relayed impulses in ascending branches of dorsal root fibers.** *J. Neurophysiol.*, 1940, **3**, 166–174.—By recording from anesthetized cats additional evidence was found that the dorsal root reflex is mediated by fibers originating from dorsal root ganglion cells. The relayed response traveling up the dorsal column which occurs simultaneously with the dorsal root reflex was recorded, and both were found to show similar properties. It is likely that the relayed response is carried centrally by the ascending branches of the same group of dorsal root fibers.—*C. E. Henry* (Brown).

683. **Jürgens, B. Über vegetative Reaktionen beim Menschen in ihrer Abhängigkeit von verschiedenen Reizen.** (Vegetative reactions in man and their dependance from various stimuli.) *Arch. Psychiat. Nervenkr.*, 1940, **111**, 88–114.—Jürgen's question was whether the sympathetic system can respond differentially to specific stimuli, or only diffusely. The method consisted in simultaneous registrations of the finger plethysmogram, the galvanic skin reflex, electrocardiogram, and electroencephalogram. The stimuli were deep breathing, a cry (fear), cold, and pain (prick). The skin and vasomotor reactions were not absolutely parallel, but depended on the quality of the stimulus. Stimuli having psychic meaning evoked both reactions, neutral stimuli only a vasomotor reaction. Vasoconstriction was the most pronounced and constant reaction. Pain and fear always produced a skin reaction and later vasoconstriction. A change in the heart rate occurred only in vagotonics, in whom pain, fear, and deep breathing produced an acceleration followed by slowing. Cold reversed this order. The electroencephalogram showed an inhibition of the alpha rhythm, most marked with stimuli having the greatest effect on the vegetative functions (pain and fear). Differential responses occur only with weak stimuli; all strong stimuli which produce pain or psychic excitement evoke a total discharge.—*M. E. Morse* (Baltimore).

684. **Kennard, M. A., & Kessler, M. M. Studies of motor performance after parietal ablations in monkeys.** *J. Neurophysiol.*, 1940, **3**, 248–257.—Unilateral lesions in areas 3, 1, 2, or 5 and 7 of the parietal cortex of monkeys produces motor disability; ablation of the last two areas has a less marked and less enduring effect. The disability produced by parietal ablations is clearly distinguished from similar motor deficits induced by lesions in areas 4 or 6 of the frontal lobe. Placing and hopping reactions depending on tactile stimulation are affected by ablations of areas 3, 1, 2, or 5 and 7, but placing reactions depending on proprioceptive mechanisms are not so markedly affected. However, complete removal of all bilateral parietal tissue abolishes placing and hopping reactions to both tactile and proprioceptive stimulation. In contrast to motor and premotor area lesions, emotion seems to have no disorganizing effect on motor performance following parietal lobe lesions which otherwise produce some motor deficit. Knee jerks may be absent or diminished immediately after parietal ablations but may become hyperactive later.—*D. B. Lindsley* (Brown).

685. **Kornmüller, A. E. Die hirnbioelektrische Untersuchung des Menschen. I. Die Grundlagen der Methodik und das Verhalten des Gesunden.** (Bioelectric brain studies in humans. I. The foundations of the method and the behavior of normals.) *Fortschr. Neurol. Psychiat.*, 1940, **12**, 193–209.—The author discusses important studies in the field and outlines his own technique. The major portion of the article is devoted to a discussion of the placing of the leads and the types of brain

waves of normal persons.—*D. S. Oberlin* (Delaware State Hospital).

686. **Lewy, F. H., & Gammon, G. D. Influence of sensory systems on spontaneous activity of cerebral cortex.** *J. Neurophysiol.*, 1940, *3*, 388–395.—This study shows that the spontaneous rhythmical activity of the cortex is dependent upon sensory systems and particularly the relaying of sensory impulses by the thalamus. The activity of cortical cells in cats under nembutal anesthesia disappears on transection of the brain-stem at the colliculi, on destruction of the optic thalamus, or on cutting of thalamocortical projection pathways. The effect is not apparently due to shock since equally extensive procedures such as removal of the cerebellum, one hemisphere, the occipital, or frontal pole does not abolish the electrical activity of the remaining cortex. Stimulation of sensory nerves, the thalamus, or the thalamic radiations at rates between 6 and 20 per minute produces discharges in the cortex which resemble the spontaneous bursts both in pattern and distribution. After-discharge is produced by stimulation at faster frequencies ranging from 1–5 per second. These two facts, the abolition of spontaneous electrical activity in the cortex by mid-brain or thalamo-cortical transections and the induction of spontaneous-like discharges by sensory or thalamic stimulation lead the authors to conclude that the spontaneous electrical activity of the cortex is largely determined by sensory impulses.—*D. B. Lindsley* (Brown).

687. **McCouch, G. P., Stewart, W. B., & Hughes, J. Cord potentials in spinal shock: crossed effects in monkey, *Macaca mulatta*.** *J. Neurophysiol.*, 1940, **3**, 151–155.—In the acute preparation the contralateral component of the intermediary cord potential is almost absent, but it recovers progressively to the ipsilateral magnitude within 2 months. The contralateral cord potential is associated with activity of the perikarya or dendrites, and its block is due to the high threshold of the contralateral dorsal horn cells. An internuncial origin of cord potentials is indicated by these data.—*C. E. Henry* (Brown).

688. **McCulloch, W. S., & Dusser de Barenne, J. G. Functional interdependence of sensory cortex and thalamus.** *Amer. J. Physiol.*, 1940, **129**, 421.–Abstract.

689. **Miller, F. R., Stavraky, G. W., & Woonton, G. A. Effects of eserine, acetylcholine, and atropine on the electrocorticogram.** *J. Neurophysiol.*, 1940, 3, 131–138.—Application of 1% eserine or 0.2-1% acetylcholine causes a reduction in amplitude of the slow waves and the large fast waves of the electrocorticogram. ACh applied to previously eserinized cortex evokes Es-ACh spikes. Associated motor effects indicate that all of these result in cortical stimulation. Atropine precludes induction of the Es-ACh spikes and motor effects. Local pilocarpine does not affect the electrocorticogram, and does not sensitize the cortex for ACh. These drug effects are not due to pH changes. "Potential changes from eserine are believed due to unequal stimulation of synapses with consequent asynchronous firing of neurones. The Es-ACh spikes are believed due to powerful synaptic stimulation with synchronization of many neurones."—*C. E. Henry* (Brown).

690. **Renshaw, B. Activity in the simplest spinal reflex pathways.** *J. Neurophysiol.*, 1940, **3**, 373–387.—Stimulation of a dorsal root (seventh lumbar or first sacral) in a decerebrate cat produces a reflex discharge in the ventral root with a central delay ranging from 0.65 to 1.0 msec. Conditioning by a previous dorsal root volley reduces this latency slightly, the lowest reflex time recorded being 0.5 msec. Central reflex times of this order are taken to represent transmission over 2 neurons with a single synaptic relay. The fact that motoneurons may respond at variable times for several seconds after the first discharge in response to a dorsal root volley suggests that interneurons may also be involved. The method affords a means of testing synaptic excitability of motoneurons. Facilitation in the motoneurons has been demonstrated for some time after the arrival at the cord of a volley over a contralateral dorsal root. During the period of facilitation it can be shown that motoneurons are receiving a barrage of impulses from interneurons. Facilitation is therefore due to a convergence of internuncial impulses set up by the original test volley. Inhibition sometimes follows the period of facilitation.—*D. B. Lindsley* (Brown).

691. **Renshaw, B., Forbes, A., & Morison, B. R. Activity of the isocortex and hippocampus: electrical studies with micro-electrodes.** *J. Neurophysiol.*, 1940, **3**, 74–105.—Assumptions based on potential theory and the membrane hypothesis have been tested by recording electric potentials from the isocortex and hippocampus of the cat and rabbit by means of micro-electrodes. Pentobarbital sodium was used as the anesthetic because it reduces the complexity of the potential variations. 2 general types of response were found in the hippocampus: slow waves of 20–70 msec. duration and rapid, spike-like deflections of about 1 msec. duration. The former are spontaneous, positive variations on the surface of the hippocampus, but become electronegative when recorded from micro-electrodes deep in the hippocampus. There is no evidence that they are summation products of the faster, axon-like spike potentials found only in the interior and thought to be the response of single neurons. Stimulation of the afferent fibers to the hippocampus produced recordable responses both on the surface of and on points within the hippocampus.—*D. B. Lindsley* (Brown).

692. **Rubin, M. A., & Freeman, H. Brain potential changes in man during cyclopropane anesthesia.** *J. Neurophysiol.*, 1940, **3**, 33–42.—The influence of cyclopropane anesthesia on the EEG was studied in 12 subjects, 9 of whom were schizophrenic. During the cyclopropane anesthesia the alpha waves first double in amplitude and are reduced in frequency to 7–8 per second, and random slow waves appear.

During the second stage (3–10 minutes) in which surgical anesthesia is reached there are mainly 3 per second waves of increased amplitude. If the anesthesia is discontinued recovery does not follow the reverse course, but rather goes through several stages of activity: 3 per sec., 3–30 per sec., 7–8 per sec., 18–20 per sec., 12–14 per sec., and finally 10 per sec. The patterns of activity are the same on the two sides of the head but vary for the different architectonic regions, the frontal, precentral, and occipital being mainly differentiated. The slow wave activity induced by the anesthesia appears first in the frontal region and last in the occipital region. The slow activity disappears first in the occipital and last in the frontal region. There is frequently a high degree of synchrony of the slow wave activity. Possible causes for the shifting of frequency during the anesthesia are discussed.—*D. B. Lindsley* (Brown).

693. **Sahs, A. L., & Fulton, J. F. Somatic and autonomic reflexes in spinal monkeys.** *J. Neurophysiol.*, 1940, **3**, 258–268.—The effect of spinal cord transection in 9 monkeys and partial section in 3 others was observed with respect to the return of somatic and autonomic reflexes. Somatic reflexes precede the reestablishment of autonomic reflexes such as piloerection, sweating, and vasoconstriction. The autonomic functions never gain full efficiency after spinal transection, however. The period of shock during which various somatic and autonomic reflexes are abolished varies from an hour, after spinal transection for some somatic reflexes, to about a week for the majority of them; the autonomic reflexes return in part about a week later than the somatic ones, although the vasomotor reflexes may be delayed by several weeks. In general the higher the transection the longer the interval for recovery of the vasomotor response.—*D. B. Lindsley* (Brown).

694. **Scarff, J. E. Primary cortical centers for movement of upper and lower extremities in man: observations based on electrical stimulation.** *Arch. Neurol. Psychiat., Chicago*, 1940, **43**, 243–299.—Observations as a result of electrical stimulation along the superior mesial border of the human cerebrum in 14 consecutive cases indicate that the primary motor area for the upper extremity commonly extends upward on the lateral surface of the cerebral hemisphere as far as its superior mesial border, while the leg, as a rule, is represented only on the mesial surface of the cerebrum.—*W. J. Brogden* (Wisconsin).

695. **Seybold, W. D., & Moore, R. M. Oculomotor nerve and reflex dilatation of pupil.** *J. Neurophysiol.*, 1940, **3**, 436–441.—This study confirms the findings of Ury and Gellhorn in showing that pupillary dilatation is due mainly to parasympathetic inhibition, for when the oculomotor nerve was severed the pupil of that side became widely dilated. This was found in 20 animals. In 8 of the 20 the sympathetic pathway was later interrupted with the result that the pupil then became less dilated. In an animal with one oculomotor nerve sectioned withdrawal of light, a painful, or an emotional stimulus all produced dilation of the pupil of the normal eye, but there was no visible dilation of the pupil on the side of the severed third nerve. Thus inhibition of the activity of the third nerve seems to constitute the main factor in reflex pupillary dilatation elicited by these stimuli. Sympathectomy causes a diminution in the extent and rate of dilatation which suggests that normally reflex dilatation caused by inhibition of the sphincter pupillae is augmented by tonic contraction of the dilator muscle through the sympathetic system.—*D. B. Lindsley* (Brown).

696. **Smith, C. G., Mettler, F. A., & Culler, E. A. The phasic response to cortical stimulation.** *J. Neurophysiol.*, 1940, **3**, 182–187.—This study was an attempt to answer the question of how a continuous faradic stimulus can give rise to a periodic response. Under light ether anesthesia only phasic responses were obtained upon cortical stimulation of cats. When the dorsal roots were cut the phasic response was replaced by a tonic response. Complete limb denervation except for the twig to a single muscle left the phasic response intact. Cutting the dorsal columns left the phasic response (forelimbs) intact, but it was abolished by slight fulguration of the ventral spinocerebellar tract. These results indicate that the phasic response is dependent upon inhibitory proprioceptive impulses arising from the contracting muscles and reaching the cord through the dorsal roots. The involvement of the uncrossed ventral spinocerebellar tract indicates that the complete mechanism probably includes the cerebellum.—*C. E. Henry* (Brown).

697. **Spiegel, E. A., & Collins, D. A. Ocular rotation in anesthesia and under the influence of supranuclear centers.** *J. Neurophysiol.*, 1940, **3**, 59–65.—Rotation of the eyes around the anterior-posterior axis was studied in cats under the influence of 9 different anesthesias ranging from ether and chloroform to the various barbiturates. The former, volatile anesthesias, which have mainly a cortical effect, showed the least rotation whereas the barbiturates, which have the greatest effect on the brain stem, showed considerable rotation. Operative elimination of the cortex and nuclei anterior to the mid-brain produced less rotation than the anesthesias of the barbiturate series. By a combination of operative procedures such as unilateral labyrinthectomy, transections anterior to the superior colliculi, and in the anterior region of the pons in both normal and mid-brain animals it was demonstrated that the rotation effect was not completely abolished by the anesthesias. This was taken to indicate that the barbiturates have an effect on mid-brain centers and also upon rhombencephalic supranuclear centers.—*D. B. Lindsley* (Brown).

698. **Stewart, W. B., Hughes, J., & McCouch, G. P. Cord potentials in spinal shock: single volleys.** *J. Neurophysiol.*, 1940, **3**, 139–145.—In cats, dogs, and monkeys cord potentials and reflex

responses to single afferent volleys were recorded at varying intervals after spinal transection. The effect of transection is to reduce the negative component and almost abolish the positive component of the cord potential. For both cord potentials and reflexes the reduction is most severe in the monkey. Spinal shock was demonstrated, in the cat and dog, only at the internuncial level, while in the monkey there was evidence of profound shock to the motoneurones.—*C. E. Henry* (Brown).

699. **Talbot, S. A. Arrangement of visual field on cat's cortex.** *Amer. J. Physiol.*, 1940, **129**, 477–478.—Abstract.

700. **Talbot, S. A., & Marshall, W. H. Multiple responses in the optic tract and optic cortex of cat.** *Amer. J. Physiol.*, 1940, **129**, 478.—Abstract.

701. **Therman, P. O. Bilateral synchronization in the human electroencephalogram.** *Amer. J. Physiol.*, 1940, **129**, 479–480.—Abstract.

702. **Therman, P. O., Forbes, A., & Galambos, R. Electric responses derived from the superior cervical ganglion with micro-electrodes.** *J. Neurophysiol.*, 1940, **3**, 191–200.—By means of micro-electrodes inserted in the superior cervical ganglion of cats and rabbits it has been demonstrated that axon-like spike responses can be obtained on preganglionic stimulation. The spikes have a duration of 1–2 msec., can be sharply localized, and appear to have an all-or-none character which suggests that they are the responses of single cells. The latency is variable but ranges from 7–20 msec.; both facts suggest that the phenomena are post-synaptic. There is not a one to one relation between preganglionic stimulation and postganglionic response. The results have a bearing on the question of whether the slow potentials recorded from the surface of the ganglion represent slow activity in single cells or the summated response of a group of cells with fast potentials. The results seem to favor the latter view.—*D. B. Lindsley* (Brown).

703. **Walker, A. E. The hypothalamus and pilomotor regulation.** *Res. Publ. Ass. nerv. ment. Dis.*, 1940, **20**, 400–415.—This is a critical review of the literature leading to the following, among other, conclusions: (1) piloerection may be obtained by stimulation of the hypothalamus; (2) pilomotor activity has cortical representation, but in an unknown site; and (3) the "hypothalamus serves to integrate pilomotor activity with other manifestations of fear, rage, thermal regulation and probably sexual excitement."—*W. S. Hunter* (Brown).

704. **White, J. C. Autonomic discharge from stimulation of the hypothalamus in man.** *Res. Publ. Ass. nerv. ment. Dis.*, 1940, **20**, 854–863.—The author's experiments on the electrical stimulation of the hypothalamus in 5 conscious subjects reveal changes in pulse rate and blood pressure but no changes in respiration. No psychic or sensory changes were detected.—*W. S. Hunter* (Brown).

705. **Wilson, F. A. K. Neurology.** (Edited by A. N. Bruce.) Baltimore: Williams & Wilkins, 1940. 2 vols. Pp. 1838. $21.00.—A comprehensive treatise of neurology for the clinician, with case reports and an extensive bibliography.—*C. P. Fitzpatrick* (State Hospital for Mental Diseases, Howard, R. I.).

[See also abstracts 709, 721, 735, 740, 748, 771, 780, 783, 785, 792, 796, 799, 800, 801, 809, 814, 815, 820, 840, 873, 1025.]

RECEPTIVE AND PERCEPTUAL PROCESSES

706. **Atkinson, T. G. The integration of visual behavior.** *Optom. Wkly*, 1940, **31**, 901–906; 929–933.—A review of the biological development of visual functions is followed by an interpretation of the visual mechanism as a "total, unitary response to a total, unitary stimulus." The basic stimulus-response is predetermined, whereas coordination is learned.—*D. J. Shaad* (Lawrence, Kansas).

707. **Betts, E. A., & Ayers, A. W. Data on visual sensation and perception tests. Part III. Stereopsis.** Meadville, Pa.: Keystone View Co., 1940. Pp. 37. $0.25.—The 3 stereopsis slides of the Betts Ready to Read Tests were used to detect cases of impaired binocular fusion among school pupils and others. The reliability of the tests proved to be high enough to justify their use in detecting cases to be referred to a specialist for further diagnosis. All subjects who score below 90% on the separate tests of stereopsis, with the telebinocular in which the slides are used set at the optical equivalents of 16 in., 40 in., and 20 ft., should be so referred. The examiners must have special laboratory instruction before they attempt to give the tests.—*L. A. Riggs* (Vermont).

708. **Blum, H. F. Sulfanilamide and increased sensitivity to light.** *Amer. J. Physiol.*, 1940, **129**, 312.—Abstract.

709. **Börnstein, W. S. The cortical taste area in monkeys and a semi-quantitative method of testing taste in monkeys.** *Amer. J. Physiol.*, 1940, **129**, 314.—Abstract.

710. **Colson, Z. W. The effect of alcohol upon vision.** *J. Amer. med. Ass.*, 1940, **115**, 1525–1527.—Visual tests following the consumption of alcohol by 21 normal subjects showed no diminution of visual acuity, visual fields, or color vision. Dark adaptation was unaffected. Tests of eye muscle balance showed no tendency to hyperphoria, but all subjects show a gradually increasing esophoria.—*W. J. Brogden* (Wisconsin).

711. **Crozier, W. J., & Wolf, E. Reaction to visual flicker in the newt *Triturus*.** *J. gen. Physiol.*, 1940, **23**, 667–676.—Although the flicker response curve of the water form of *Triturus* shows a structure similar to that of fresh-water fish previously examined, the cone portion of the frequency-log-intensity curve has a much greater spread. A variable departure in the cone curve from the usual probability integral form is interpreted as evidence for the presence of a third retinal element in addition to rods and cones.—*D. K. Spelt* (Mississippi).

712. **Crozier, W. J., & Wolf, E. The flicker response curve for *Fundulus*.** *J. gen. Physiol.*, 1940, **23**, 677–694.—The flicker response curve obtained with this teleost conforms in general to those obtained with other vertebrates, but the rod contribution is greater, both absolutely and relatively to the cone contribution. Pre-test exposure of the subjects to supra-normal temperatures shifts the frequency-log-intensity curve to lower intensities than normal, but both rod and cone portions are displaced equally, hence no differentiation of the excitability mechanism is revealed.—*D. K. Spelt* (Mississippi).

713. **Ferree, C. E., & Rand, G. A more nearly absolute method of testing and rating vision.** *Arch. Ophthal., Chicago*, 1940, **24**, 292–315.—A criticism of capital letter charts, pointing out their failure to conform to the 1–5 minute scale recommended by Snellen, and indicating the incalculable part played by recognition in such tests, is followed by a recommendation of the double-broken circle chart designed by the authors. This provides a test object correctly designed on the 1–5 minute scale, which eliminates the recognition factor, reveals the relative acuities in the horizontal, vertical, and oblique meridians with only two positions of the target, and, with its greater range of sizes, affords a finer scale for rating acuity.—*M. R. Stoll* (American Optical Co.).

714. **Fusfeld, I. S. Conference on problems of deafness. National Research Council, Washington, D. C., May 17–18, 1940.** *Amer. Ann. Deaf*, 1940, **85**, 391–412.—This is a report of a conference called for the presentation and discussion of papers dealing with the various problems of deafness and education of deaf children. There were 24 participants. Some of the problems suggested for further research were: incidence of deafness, heredity of deafness, improvements of audiometric methods, hearing aid efficiency, preschool deaf children, problems related to teachers of the deaf, adequate testing programs for schools for the deaf, intelligence and achievement of deaf children, and the prevention of deafness. List of the resolutions adopted by the conference.—*C. V. Hudgins* (Clarke School).

715. **Glen, J. S. Ocular movements in reversibility of perspective.** *J. gen. Psychol.*, 1940, **23**, 243–281.—Simultaneous photographic recordings were made of eye movements and manual reports of reversals in Necker's cube. During spontaneous observation of the figure by the 10 subjects eye movements were about twice as frequent as reversions. There appeared to be a temporal relationship between eye movements and reversions and also between the manual responses and other eye movements. With some exceptions, there was a tendency for voluntary facilitation or inhibition of reversions to affect the eye movements in a similar direction. Fixation on a point reduced the frequency of reversions, as did alternation of fixation between points. No practice effects were found as a result of training. It is concluded that there is interdependence between reversions and eye movements, although the relation is affected by complexity of the task and possibly by the motor response. The relationship is greatest when *S* manages his task and less so when adjustment of eye movements is prescribed. An appendix gives the instructions used, a questionnaire, and the results of ocular examinations. 42 references.—*C. N. Cofer* (U. S. Employment Service).

716. **Good, P. Clinical use of lacquer in ophthalmology for the treatment of squint, suppression, amblyopia and diplopia.** *Arch. Ophthal., Chicago*, 1940, **24**, 479–481.—Acuity can be reduced in practically any desired degree by wearing a lens appropriately brushed or stippled with lacquer. Advantages of occlusion are thus gained without loss of peripheral fields and without objectionable cosmetic effects.—*M. R. Stoll* (American Optical Company).

717. **Guilford, J. P. There is system in color preferences.** *J. opt. Soc. Amer.*, 1940, **30**, 455–459.—A system is discerned when color preferences are related to the attributes of color. Experimental results "point very strongly to a basic communality of color preferences among individuals. This communality probably rests upon biological factors, since it is hard to see how cultural factors could produce by conditioning the continuity and system that undoubtedly exists."—*R. J. Beitel, Jr.* (American Optical Company).

718. **Hackman, R. B. An experimental study of variability in ocular latency.** *J. exp. Psychol.*, 1940, **27**, 546–558.—The purpose of this study was to investigate the latency of ocular response to suddenly appearing peripheral stimuli when the line of regard is shifted to a new stimulus position. The following factors were chosen for investigation: variation in the zonal position of the stimulus, repetition, knowledge or lack of knowledge of stimulus position, and individual differences in response. An analysis of the data leads to the following conclusions: (1) The variation among means of subjects is highly significant for all experimental conditions and is a major source of variability in the observed reaction-times. (2) Reaction-time is affected by variation in zonal position of the peripheral stimulus, except in the case where a naive subject knows the position of the stimulus before he reacts to it. (3) Reaction-time of the eye varies, depending on the amount of practice the subject has had, when he has no exact knowledge of the position of the stimulus to be reacted to. This result is for pooled data and is not consistent from subject to subject. The general trend is for latency to decrease with practice.—*H. W. Karn* (Pittsburgh).

719. **Hay, J. C., & Roaf, H. E. The "blue-green" region of the spectrum.** *J. Physiol.*, 1940, **98**, 389–396.—An apparatus is described by which the blue-green region of the spectrum was demarcated in 100 subjects. The average width of this region is $60.47 \pm 33.36A$ and its mid-posi-

tion is at 4928 ± 51.3*A*. There is some indication that different individuals may place their blue-green regions at different wave length bands of the spectrum, while the yellow region appears more uniform in position for normal people.—*M. E. Morse* (Baltimore).

720. **Hecht, S., & Pirenne, M. H. The spectral sensibility of the long-eared owl.** *Amer. J. Physiol.*, 1940, **129**, 378.—Abstract.

721. **Hinsey, J. C., & Phillips, R. A. Observations upon diaphragmatic sensation.** *J. Neurophysiol.*, 1940, **3**, 175–181.—Through the use of spinal cord transection and sympathetic chain removal in cats and dogs it was found that the perception of painful stimulation of the diaphragm is dependent upon afferent conduction through sensory fibers of the phrenic nerve. Additional observations on one man showed that referred pain (shoulder-tip region) may result from diaphragmatic stimulation even though a wide shoulder skin area is anesthetized. "Viscero-cutaneous reflexes are not essential for nociceptive sensation when the central diaphragmatic peritoneum is stimulated in the experimental animal or in man."—*C. E. Henry* (Brown).

722. **Jung, F. T., & Greenberg, R. The scoring of dark adaptation tests.** *Amer. J. Physiol.*, 1940, **129**, 392–393.—Abstract.

723. **Kleitman, N., & Schreider, J. Sleepiness and diplopia.** *Amer. J. Physiol.*, 1940, **129**, 398.—Abstract.

724. **Kobayasi, S. [An experimental study of the influence of need upon the visual perception of the white rat.]** *Jap. J. Psychol.*, 1940, **15**, 234–248.—Under conditions of fundamental needs white rats have a tendency to group discontinuous visual stimuli according to proximity; when these conditions are not present, such a grouping may not occur. Even if each member is of such form that the whole organization may be selected on the basis of its continuous rather than its discontinuous Gestalt, the process of perception itself is not able to establish cohesion among the parts unless a special need exists.—*R. Kuroda* (Keijo).

725. **Macht, D. I., & Macht, M. B. Comparison of effect of cobra venom and opiates on olfactory sense.** *Amer. J. Physiol.*, 1940, **129**, 411–412.—Abstract.

726. **Mandelbaum, J., & Hecht, S. Dark adaptation under controlled dietary vitamin A conditions.** *Amer. J. Physiol.*, 1940, **129**, 416.—Abstract.

727. **McDonald, R., & Adler, F. H. Clinical evaluation of tests of dark adaptation.** *Arch. Ophthal., Chicago*, 1940, **24**, 447–461.—Using the adaptometer of Hecht and Shlaer, McDonald determined the dark adaptation curves of various types of pathological cases. Decreased transparency of the ocular media resulted in a general raising of thresholds with no change in the slope of the curve. In retinal degenerations, results depend upon the condition of the area tested; no clue as to the adaptation process in the spared areas can be gained by testing an affected area. For no evident reason, some myopes show definite decrease in light sensitivity. Avitaminosis A resulted in elevation of light thresholds for some patients but not for all. When demonstrated, decreased sensitivity persisted for some months after resumption of a normal diet.—*M. R. Stoll* (American Optical Company).

728. **Minami, H. [An experimental study on the determinant factors of visual space perception.]** *Jap. J. Psychol.*, 1940, **15**, 153–180.—Experiments to determinine the relative importance of binocular parallax in depth perception as against form of the figures or experience, lead the author to conclude that the parallax determines depth perception as an almost absolute agent, but that the subjects' attitude plays also some indispensable part.—*R. Kuroda* (Keijo).

729. **Morse-Peckham, R. [Dir.] The principles of binocular fusion and stereoscopic vision.** *Clin. Res. Rep., Opt. Res. Inst.*, 1940, No. 6. Pp. 138.—"The past few years have seen a greatly increased use of stereoscopes in refractive practice, especially in orthoptic training. In these pages we have attempted to present, so far as they are known and so far as they can be substantiated by direct demonstration, the principles of binocular fusion and stereoscopic vision in non-technical terms." Included are discussions of stereoscopic acuity, perspective, identical retinal points, parallax, and retinal rivalry. —*C. H. Graham* (Brown).

730. **Nathan, R. The national census of the deaf.** *Amer. Ann. Deaf*, 1940, **85**, 340–341.—The decision to omit a special enumeration of the deaf in the 1940 census was influenced by the unsatisfactory experience with past attempts. No high degree of accuracy is to be expected because of the following factors: a lack of careful definition of the term deafness; variables in judgment, intelligence, and persistence of the enumerators; and the tendency of relatives to conceal facts.—*C. V. Hudgins* (Clarke School).

731. **Nicholls, J. V. V. A survey of the ophthalmic conditions among rural school children.** *Canad. med. Ass. J.*, 1940, **42**, 553.—[Abstracted review; original not seen.] 29.7% of 521 pupils between the ages of 5 and 20 were found to have defective vision; glasses were indicated in 12.8%.—*D. J. Shaad* (Lawrence, Kansas).

732. **Paterson, D. G., & Tinker, M. A. Influence of line width on eye movements.** *J. exp. Psychol.*, 1940, **27**, 572–577.—In a series of 11 reading performance experiments it was demonstrated that excessively short lines (9 picas) and excessively long lines (43 picas) are both read much more slowly than lines of moderate width (19 picas). Eye-movement photographs of subjects indicate the precise changes in oculomotor patterns involved in reading excessively short and long line widths. It appears that the decreased efficiency with which a very short line is read is due to the reader's inability to make maximum use of horizontal peripheral cues. Analytical records derived from the reading of extremely long

line widths reveal that the task of locating the beginning of successive lines of print is accomplished only with great difficulty. This is shown by the striking increase in regression frequency.—*H. W. Karn* (Pittsburgh).

733. **Pumphrey, R. J. Hearing in insects.** *Biol. Rev.*, 1940, **15**, 107–132.—The writer outlines the difficulties attending a precise definition of auditory organs, referring to early work on insect hearing. It is shown that tympanic organs of insects have a common structural plan, even though they may be of different origin in the several groups. An account is given of experimental studies which have established the auditory function of the tympanic organs in certain species. Some insects have the ability to discriminate between qualitatively different sounds, as well as to localize with considerable accuracy. The writer reviews the evidence of auditory powers of species not provided with tympanic organs. He shows that "hair sensilla are in certain instances receptors for sounds of relatively low frequency, in contrast with tympanic organs which respond only to relatively high frequencies."—*F. W. Finger* (Brown).

734. **Rogers, J. D. Field analysis in optometric practise.** *Optom. Wkly*, 1940, **31**, 1069–1072.—Field charts of 2 cases are presented indicating that pre-exposure to varying illuminations may cause functional variation in color fields.—*D. J. Shaad* (Lawrence, Kansas).

735. **Ruch, T. C., Kasdon, S., & Fulton, J. F. Late recovery of sensory discrimination ability after parietal lesions in the chimpanzee.** *Amer. J. Physiol.*, 1940, **129**, 453.—Abstract.

736. **Ryan, T. A. Interrelations of sensory systems in perception.** *Psychol. Bull.*, 1940, **37**, 659–698.—This is a review of experimental observations which bear upon the interrelations of the various sense departments. There is special emphasis on the co-operative function of the senses, and very little attention is given to the disruptive and inhibitory effects of one sensory system upon another. Also, topics such as attention, synesthesia, distraction, etc. have been excluded. The co-operative relations of the senses are summarized under 4 headings: (1) dynamogenic intersensory effects, where stimulation in one sense modality increases sensitivity or acuity in another; (2) intersensory dependence and consonance, where there is an influence of one modality on the qualities of another modality; (3) intermodal relations in perceiving spatial qualifications; and (4) intermodal relations in perceiving other nonspecific properties of objects, such as weight. In conclusion, it is stated that there are important intersensory effects even though the sensory stimulations are not permitted to have the normal meanings. The most fruitful line of research should be the study of intersensory co-operation in the normal perception of objects.—*A. W. Melton* (Missouri).

737. **Selfridge, G. Chronic progressive deafness with special reference to estrogenic substances.** *Ann. Otol., etc., St Louis*, 1940, **49**, 52–75.—Clinical evidence suggests that estrogenic substances play an important role in conduction deafness.—*W. J. Brogden* (Wisconsin).

738. **Sheard, C., Bair, H. L., & Steffens, L. F. Dark adaptation and dietary vitamin A deficiency.** *Amer. J. Physiol.*, 1940, **129**, 461–462.—Abstract.

739. **Sloan, L. L. Instruments and technics for the clinical testing of light sense. IV. Size of pupil as a variable factor in the determination of the light minimum.** *Arch. Ophthal., Chicago*, 1940, **24**, 258–275.—Consideration of the work of Stiles and Crawford and other investigators of the relative luminous efficiency of light passing through peripheral portions of the pupil suggests possible criticism of the corrections introduced to compensate for differences in pupil size during dark adaptation tests. A group of experiments were designed to test the validity of a correction factor derived from the assumption that the area of the pupil times the threshold brightness is constant for equivalent conditions. These experiments were carried out under carefully controlled conditions with the Hecht apparatus and with the perimetric light sense tester previously described by Sloan. Tests were made with white, blue, and red stimuli. Pupils were dilated with euphthalmine and a series of artificial pupils was used. All results indicated that the product of the pupil area and threshold remained a constant, with variation not exceeding the daily variation for a single individual as determined by Hecht and Mandelbaum. A satisfactory arrangement for photographing the pupil in the dark is described.—*M. R. Stoll* (American Optical Co.).

740. **Smith, K. U., & Kappauf, W. E. A neurological study of apparent movement.** *J. gen. Psychol.*, 1940, **23**, 315–327.—An apparent movement situation was produced by stroboscopic illumination of vertical stripes in a rotating drum, and eye movements of the subjects (cats) were electrically recorded. Optic nystagmus was elicited by apparent movement, although it was of less regularity, and of lower frequency and amplitude than that elicited by real movement. The response to apparent movement was less consistent in 5 animals lacking the striate cortex than in 3 normal animals. One operated and 2 normal animals exhibited optic after-nystagmus. "Apparent movement vision may be mediated through the collicular and pretectal nuclei in the absence of the cortical projection areas of the retinae." Optic nystagmus to apparent and real movement is similar, so that the response to the latter, physiologically, may also be a series of discrete neural patterns. "The neural basis of apparent movement is primarily allied with the reflex functions of summation and excitatory spread in subcortical optic centers," so that cortical function need not be postulated to explain it.—*C. N. Cofer* (U. S. Employment Service).

741. **Sorsby, A. The dystrophies of the macula.** (With a genetic note by H. Grüneberg.) *Brit. J. Ophthal.*, 1940, **24**, 469–533.—8 familial groups of

macular dystrophy are reported. They illustrate the great range of ophthalmoscopic appearances. Symptomatically macular dystrophy has an equally wide range. The symptoms may be so severe as to constitute total day blindness (total color blindness) or so mild that vision is hardly affected. The condition is not necessarily rapidly and relentlessly progressive. Best's congenital macular degeneration, Doyne's choroiditis, Stargardt's disease, and the numerous types of central macular dystrophy described by different observers constitute a single clinical entity with more than one mode of inheritance.—*R. J. Beitel, Jr.* (American Optical Company).

742. **Spiegel, E. Rhythmic stimulation of the labyrinth.** *Amer. J. Physiol.*, 1940, **129**, 470.—Abstract.

743. **Starostuk, E. M. [The rapidity of regeneration of visual purple and the maximum light sensitivity of the various portions of the retina.]** *Vestn. Oftal.*, 1940, **16**, No. 4, 255 ff.—[Abstracted review; original not seen.] Variation in sensitivity of the peripheral retina was found; the speed of regeneration of visual purple is practically constant for the entire retina.—*D. J. Shaad* (Lawrence, Kansas).

744. **Storey, R. T. Proprioceptive discrimination in the cat. I. Apparatus and method.** *J. comp. Psychol.*, 1940, **30**, 347–373.—A tilt box which provided control of all but proprioceptive cues was used to test discrimination of a downhill from an uphill path by 55 cats. The box had an entrance at its center. It was tilted on its central axis successively at 7°, 5°, and 3°. Discrimination was assumed to be present when, in 9 out of 10 trials in 4 successive days, the cat selected the downhill path. Typical learning curves are presented. *N. L. Munn* (Vanderbilt).

745. **Storey, R. T. Proprioceptive discrimination in the cat. II. Analysis of group data.** *J. comp. Psychol.*, 1940, **30**, 375–398.—A detailed analysis of learning data for the 55 cats mentioned in part I. (See XV: 744) is presented. The chief findings are: (1) There is no initial preference for an uphill or downhill path. (2) A greater percentage of errors occurs in the first 5 than in the last 5 of the 10 daily trials. (3) Comparison of the performance of the main group with that of a preliminary group trained with a 10° angle shows that 7° discrimination is reliably more difficult than 10°. (4) Transfer of training from the 7° to the 5° and 3° settings of the apparatus is apparent. (5) The 3° discrimination is supraliminal, but more difficult to maintain at a stable level than is the 5° discrimination. (6) The only sex difference is a greater variability of response in females than in males on the 7° problem. Reliability data are reported for various aspects of performance on each problem.—*N. L. Munn* (Vanderbilt).

746. **Verhoeff, F. H. Phi phenomenon and anomalous projection.** *Arch. Ophthal., Chicago*, 1940, **24**, 247–251.—Verhoeff found that the Phi phenomenon was readily elicited in 13 cases of squint when two targets were arranged so that each was on the line of fixation of one eye while extrafoveal images were screened out. The extent of the apparent movement closely corresponded with the actual distance between the targets. With convergent squinters a screen was introduced with a hole at the crossing point of the lines of fixation. The patient accommodated for the plane of the screen. When the targets were alternately illuminated, the light appeared to move only within the limits of the hole. One divergent squinter who could fix binocularly reported movements in opposite directions when an experiment was arranged so that alternate stimulation of the same two retinal areas on the two eyes could be given under conditions of binocular fixation and of monocular fixation with divergence. Again the reported direction of movement corresponded to the actual positions of the objects. These experiments indicate that Wertheimer's explanation of the phenomenon is inadequate since it fails to take account of the participation of cortical centers which do not bear a fixed functional relation to the retinas. The description of one experiment is confused by the substitution of "left" for "right" in the 7th line of page 250.—*M. R. Stoll* (American Optical Co.).

747. **Weinstein, B., & Grether, W. F. A comparison of visual acuity in the rhesus monkey and man.** *J. comp. Psychol.*, 1940, **30**, 187–195.—2 monkeys and 2 men were tested for minimum separable visual acuity by means of a modified Ives apparatus. The pulling-in technique was used. Thresholds (75% accuracy) at 3 brightness levels ranged from 0.67–0.90 minutes of visual angle for monkeys and 0.48–0.81 minutes of visual angle for human subjects. The thresholds for rhesus monkeys agree with those reported by Spence for chimpanzees and Johnson for cebus monkeys. Consideration of previously reported data on color vision and visual acuity in mammals suggests a parallel evolution.—*N. L. Munn* (Vanderbilt).

748. **Weinstein, E., Sjöqvist, O., & Fulton, J. F. Effect of medial lemniscus section on weight discrimination.** *Amer. J. Physiol.*, 1940, **129**, 491–492.—Abstract.

749. **Werner, C. F. Das Labyrinth; Bau, Funktionen und Krankheiten des Innenohres vom Standpunkte einer experimentellen und vergleichenden Pathologie.** (The labyrinth; structure, functions, and diseases of the inner ear from the point of view of experimental and comparative pathology.) Leipzig: Thieme, 1940. Pp. xvi + 400. RM. 38.—(*Biol. Abstr.* XIV: 15997).

750. **Wever, E. G., Bray, C. W., & Lawrence, M. A quantitative study of combination tones.** *J. exp. Psychol.*, 1940, **27**, 469–496.—The electrical responses of the cochlea were used to study the combination tones and their quantitative relations to the stimuli. An analysis of the response to two pure tones of high intensity revealed, in addition to the harmonics of the two primaries, all the sum and difference combinations of the stimuli and their

integral multiples, up to rather high orders. Subharmonics, the meantone, and the intertone were not found. The results are considered in relation to the classical theories on the origin of combination tones: the beat-tone theory, the overtone theory, and the transformation theory. Of these, the transformation theory is found to be correct in principle, but in need of correction in mathematical detail. In the response pattern, summation tones have equal status with difference tones; they cannot be accounted for as difference tones of higher order. For particular primaries there are only slight differences in magnitude between the summation tones and their corresponding difference tones; usually the difference tones are larger, but occasionally the reverse is true. Some features of the preceptual phenomena are not found in the peripheral processes, and must be ascribed to supervening activities in the nervous system.—*H. W. Karn* (Pittsburgh).

751. **Wever, E. G., Bray, C. W., & Lawrence, M. The interaction of tones in the ear.** *Science*, 1940, **92,** 510.—Abstract.

[**See also abstracts 617, 656, 669, 699, 700, 765, 772, 789, 795, 817, 910, 949, 988, 991, 993, 1001, 1041, 1045, 1049, 1060, 1093, 1131.**]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

752. **Anderson, A. C. Evidences of reminiscence in the rat in maze learning.** *J. comp. Psychol.*, 1940, **30,** 399–412.—After they had partially learned a 14-unit multiple-T maze, 144 rats were divided into 4 equivalent groups. The first group was given 5 further runs immediately, the second after one day, the third after 5 days, and the fourth after 10 days. The last 3 groups evidenced improvement after the period of non-practice. This improvement increased with the duration of the interpolated period. Lapsing of error tendencies, rather than perseveration, is the explanation favored. Initial performance after the interval is better than the average of the remaining 4 performances, which is taken as further evidence of reminiscence. The possibility that it can be attributed to initial spurt followed by a work decrement is considered. The author points out that "reminiscence, the advantage of distributed repetitions, Jost's law, and the initial spurt in the work curve followed by a work decrement are closely related phenomena, have been similarly explained by certain writers, and may either be essentially the same thing, or rest upon the same fundamental phenomenon."—*N. L. Munn* (Vanderbilt).

753. **Brogden, W. J. Lateral cerebral dominance in the dog tested by the conditioning and extinction of forelimb flexion.** *J. gen. Psychol.*, 1940, **23,** 387–392.—20 unselected mongrel dogs were conditioned to a bell with electric shock to the left forelimb (10 animals) or to the right forelimb (10 animals) as the unconditioned stimulus. The criterion of conditioning was 20 shock-avoiding flexion responses to the bell in one test-period, and the criterion of extinction was absence of conditioned responses in a single test-period. The two groups did not differ significantly in the time required to establish conditioned forelimb flexion nor in extinction time. If lateral cerebral dominance does exist in the dog, it "does not affect the conditioning and extinction of either the right or left forelimb."—*C. N. Cofer* (U. S. Employment Service).

754. **Ellson, D. G. Successive extinctions of a bar-pressing response in rats.** *J. gen. Psychol.*, 1940, **23,** 283–288.—Groups of 12 rats each were given 30 training trials, reinforced by food, on a horizontal bar-pressing habit and 30 on a vertical-bar habit. On the following day 5 extinction series were given to one group at 65 minute intervals, 5 to another at 185 minute intervals, 10 to a third and a fourth group at 5.5 and 25 minute intervals, respectively. The criterion of extinction was absence of lever-pressing in a 5 minute period. On the first extinction, the groups did not differ in number of responses or time required, and they were similarly homogeneous with respect to learning time. A negatively accelerated decrement in the number of responses made in successive extinctions was obtained. Decrement occurred somewhat more rapidly for the short than for the long time intervals. Data on time required for successive extinctions showed a similar picture.—*C. N. Cofer* (U. S. Employment Service).

755. **Fitts, P. M. Preserveration of non-rewarded behavior in relation to food-deprivation and work-requirement.** *J. genet. Psychol.*, 1940, **57,** 165–191.—4 groups of 10 white rats each, trained in a Skinner-type apparatus, were used in this study. The amount of work per lever-depression (10 gm.-cms. or 100 gm.-cms.) was systematically varied with duration of food deprivation (12 hrs. or 48 hrs.). After 30 rewarded responses, no animal again secured food in the experimental situations, but responses were recorded for the next 7 mos. During the first weeks the behavior showed rapid decline, later a partial recovery, and finally a period of stabilized response rate with little change. Animals with 48-hr. deprivation made more responses and showed smaller fluctuations than the others. Animals doing less work per response pressed the lever more often than those doing more.—*D. K. Spelt* (Mississippi).

756. **Gantt, W. H. Relation of unconditioned and conditioned reflex: effect of prolongation of the work period from the usual one hour to a period of ten to twenty hours.** *J. gen. Psychol.*, 1940, 23, 377–385.—5 dogs which previously had established conditioned salivary reflexes to auditory and visual signals were used in this experiment. 20 hour work periods in which several hundred pairings of the conditioned signal and food could be made, instead of the 12 of the one hour period, were utilized. In some dogs the CR decreased in volume after 7 or 8 hours; for the first 2 or 3 hours conditioned secretion rose slightly; after satiation it dropped to 0

reappearing soon after in a reduced amount, while the UR was unaffected throughout the experiment. Large and small CR's were affected similarly, and latent periods of both motor (head turning) and secretory conditioned reactions were not modified. During the experiment one animal changed from the inhibited to the excited type. The orienting reflex disappeared as satiation was approached. No change was noted in either CR's or UR's the next day. Since the CR's and UR's are variously affected by motivation factors, the author holds them to be different types of reactions.—*C. N. Cofer* (U. S. Employment Service).

757. **Gantt, W. H., & Hoffmann, W. C. Conditioned cardio-respiratory changes accompanying conditioned food reflexes.** *Amer. L. Physiol.*, 1940, 129, 360–361.—Abstract.

758. **Gordon, K. Homer on imagination.** *J. gen. Psychol.*, 1940, **23**, 401–413.—(1) Examples are given of words used by Homer to denote mental events. (2) Citations are made to show his handling of the possibility of future events. (3) He expressed the notion of lawfulness in human behavior. (4) He conceived human conduct as subject to different kinds of order, such as the influence of the gods. (5) He recognized that the dream is different from a waking experience and that it may or may not be true. (6) Lies, memory, and inner speech are treated as aspects of imagination. (7) That Homer regarded imagination highly is evidenced by his attitude toward the poet. (8) "His treatment of imagination is best given in the words and deeds of his inventive men and women."—*C. N. Cofer* (U. S. Employment Service).

759. **Harlow, H. F., & Toltzien, F. Formation of pseudo-conditioned responses in the cat.** *J. gen. Psychol.*, 1940, **23**, 367–375.—18 cats received 3 series of 10 presentations of an electric shock stimulus (US) in either an experimental cage or a restraining apparatus. Varying periods of time after this experience, a buzzer was sounded 5 times in a neutral room to which the animals were taken, and then on the return to the experimental setting, the buzzer series (PCS) was repeated. This procedure was repeated on the next 2 days, and subsequently retention tests were made. Motor responses to PCS were scored on a 10-point scale. 15 of the animals formed pseudo-conditioned responses (PCR), the frequency of PCR increasing with the frequency of US and being greater in the experimental situation than in the neutral room. PCR's developed even with a 24 hour interval between US and PCS. PCR's were retained 24–96 hours, and retention was better in the experimental setting than in the neutral environment. Latencies of PCR's were greater than those for the unconditioned responses. PCR's were frequently first elicited when tested in a neutral environment.—*C. N. Cofer* (U. S. Employment Service).

760. **Held, O. C. The influence of month of birth on the intelligence of college freshmen.** *J. genet. Psychol.*, 1940, **57**, 211–217.—When the percentile scores of 2327 college freshmen on the American Council psychological examination were classified according to month of birth no statistically significant differences appeared.—*D. K. Spelt* (Mississippi).

761. **Holland, R. The development of logical and rote memory.** *Stud. Psychol. Psychiat. Cath. Univ. Amer.*, 1940, **4**, No. 8. Pp. 45.—The memorizing of logical and rote material was compared for grades III–V of an elementary school, mental and chronological ages of the subjects being controlled. Learning curves were plotted according to a formula in which the logarithm of the amount learned at any given point is treated as a function of the difference between the task and the product of resistance and quickness of the subject for that trial. The curves for the speed constant were consistently higher in the case of rote material, showing the effect of logical material to be greater. This result was confirmed by the data for inertia. It is concluded that 2 different memorial functions are actually concerned. *H. D. Spoerl* (American International College).

762. **Keller, F. S. The effect of sequence of continuous and periodic reinforcement upon the 'reflex reserve.'** *J. exp. Psychol.*, 1940, **27**, 559–565.—In studying the lever-pressing response in rats Skinner has shown that when periodic reinforcement follows continuous reinforcement prior to extinction it remains efficacious in adding to the reserve and changing the proportionality between the reserve and the strength. In the present study the author examined the effect of an alternative sequence of operations, periodic followed by continuous reinforcement. The evidence shows that the effect of reversing the sequence of continuous and periodic reinforcement is (1) insignificant with respect to the size of the reflex reserve, but (2) shows itself as a changed proportionality between the reserve and the reflex strength. In other words, the total number of available responses is neither increased nor decreased as a result of the sequence chosen, but the rate of emission is altered.—*H. W. Karn* (Pittsburgh).

763. **Lowenbach, H., & Gantt, W. H. Conditioned vestibular reactions.** *J. Neurophysiol.*, 1940, **3**, 43–48.—Vestibular reactions involving head and body movements, loss of balance, and falling to one side which were induced in 4 dogs by galvanic stimulation applied between external auditory meatuses were conditioned to auditory stimuli. Differentiation was produced by conditioning a new stimulus to a reversed response induced by reversal of the galvanic current. Stability of the vestibular conditioned responses was indicated by 5–8 month retention.—*D. B. Lindsley* (Brown).

764. **Maeda, Y. [On the reproductive inhibition. I & II.]** *Jap. J. Psychol.*, 1940, **15**, 181–206; 261–281.—In the introduction concerning the mechanism of residue of impression, the Gestalt hypotheses of Köhler, Koffka, Jakobs, Lauenstein, and others, Müller and Pilzecker's retroactive inhibition theory, and the transfer theory of Robinson, Skaggs, Webb,

and others, are referred to. This is followed by the author's experiments on filter action, proposed by I. Müller to explain reproductive inhibition as an effect of disturbing series on principal series. Disturbing series were interpolated immediately after and several minutes after the principal series, and immediately before and several minutes before reproduction. It was found that reproductive inhibition acts in addition to retroactive inhibition, the former being regarded as a filter effect which the residue organization of the interpolated series exerts on the reproductive process of the principal series. The way of filter action depends on the degree of organization of the residue of interpolated series and their similarity to the principal series.—*R. Kuroda* (Keijo).

765. **Masaki, M., & Kawaguti, I. [On the discriminating process of behavior.]** *Jap. J. Psychol.*, 1940, **15,** 207–233.—5 white rats were trained to discriminate different shades of gray. It was suggested that in this process discriminative Gestalt plays a prominent role; several forms of error behavior, such as vicarious trial and error and turning, as well as smooth behavior develop along with sex difference, difficulty of discrimination, preceeding conditions, and progress of learning.—*R. Kuroda* (Keijo).

766. **McNemar, Q. More on the Iowa IQ studies.** *J. Psychol.*, 1940, **10,** 237–240.—The author answers the objections of the Wellman-Skeels-Skodak review of his previous critique of the Iowa IQ studies. (See XIV: 2339.)—*F. A. Mote, Jr.* (Connecticut).

767. **Mote, F. A., Jr. Correlations between conditioning and maze learning in the white rat.** *J. comp. Psychol.*, 1940, **30,** 197–219.—Scores for maze learning (trials and errors) were correlated with scores for conditioning (trials, shocks, and extinction trials). 3 responses were conditioned: respiration, running in an activity cage, and running on a grid. In each case the stimuli were light and shock. The problems were presented in different orders to control possible transfer effects. Of 99 male rats which began training on one or more problems, only 28 completed all four. Intercorrelations of scores for these animals were, in all but a few cases, higher than those obtained for scores of animals which failed to master all problems. The latter animals exhibited marked variability. Pearson product-moment correlations between maze and conditioning scores were all low and the investigator concludes that "ability to learn the maze is only slightly associated with ability to condition on the other three problems." There was no evidence of transfer between maze learning and conditioning problems.—*N. L. Munn* (Vanderbilt).

768. **Mowrer, O. H. Anxiety-reduction and learning.** *J. exp. Psychol.*, 1940, **27,** 497–516.—The aim of this experiment was to test the hypothesis that anxiety-reduction acts as a reinforcing state (as defined by the law of effect). 3 experimental procedures, designed to provide 3 different degrees of anxiety-reduction, were conducted with rats and guinea pigs. The results indicate that anxiety-reduction is positively correlated with learning, thereby supporting the supposition that it is a reinforcing agent. The implications of the findings are discussed and contrasted with alternative interpretations suggested by the conditioned-reflex conception of the learning process. The latter is found deficient because of its emphasis upon the importance of temporal contiguity of stimuli and its neglect of the factors of motivation and motivation-reduction.—*H. W. Karn* (Pittsburgh).

769. **Pillsbury, W. B., & Sylvester, A. Retroactive and proactive inhibition in immediate memory.** *J. exp. Psychol.*, 1940, **27,** 532–545.—"This is a study of the effect of retroactive inhibition upon primary memory. It shows that the number of items reported when they are seen in a tachistoscope or exposed once serially in a memory apparatus is reduced by from 25 percent to 43 percent when mental work is done during the succeeding ten seconds as compared with the number reported after a ten second rest. Reporting on a second list of material has rather more effect (45 percent to 85 percent) than does mental arithmetic. Learning nonsense material has about the same effect as does learning material of the same kind as in the original list. Proaction was also found to affect the retention of material in primary memory in about the same amount as does retroaction."—*H. W. Karn* (Pittsburgh).

770. **Shock, N. W., & Jones, H. E. The relationship between basal physiological functions and intelligence in adolescents.** *J. educ. Psychol.*, 1940, **31,** 369–375.—No significant correlations were found between measurements of pulse rate or blood pressure taken in the basal state and performance on the Terman group test, or between basal oxygen consumption and Terman test performance. Subjects were 87 fourteen year old children. Bibliography.—*R. M. Bellows* (Maryland).

771. **Silverman, W., Shapiro, F., & Heron, W. T. Brain weight and maze learning in rats.** *J. comp. Psychol.*, 1940, **30,** 279–282.—The wet weight, water weight, organic weight, and ash weight of the brains of 28 bright and 35 dull rats from the F_{14} generation of the Minnesota colony did not differentiate the 2 strains. Bright rats had a larger brain weight/body weight ratio, than dull rats, but the critical ratio was only 2.21.—*N. L. Munn* (Vanderbilt).

772. **Steckle, L. C. The relative efficiency of single versus multiple exposures in the rapid memorization of visual forms.** *J. sci. Labs Denison Univ.*, 1940, **35,** 1–31.—12-digit numbers were presented visually for learning during (1) a brief single exposure and (2) several successive exposures having the same total duration as the single exposure. Learning was equally efficient under both conditions, provided that the subjects were specifically trained on each. The 2 conditions apparently demand altogether different methods of attack. Frequency

and duration are not synonymous or interchangeable. There is little evidence, therefore, that the formation of delayed conditioned reflexes could be the basis for success in both conditions. It was concluded that the process of perceiving was not explainable in conditioned reflex terms, but must be regarded as a "smooth, ballistic performance" involving visual imagery. The process was influenced by the manner of grouping, the difficulty of the problem, and the attitude of the subject.—*L. A. Riggs* (Vermont).

773. **Stoddard, G. D. The IQ in a nutshell.** *Stud. high. Educ. Purdue Univ.*, 1940, No. 37, 72–82.—A brief review of the Iowa findings on the constancy of the IQ.—*C. M. Louttit* (Indiana).

774. **Tryon, R. C. Studies in individual differences in maze ability. VII. The specific components of maze ability, and a general theory of psychological components.** *J. comp. Psychol.*, 1940, **30,** 283–335.—"The psychological components . . . which determine individual differences in a given performance are conceived of as being validly inferred from performance if they satisfy the criteria of internal consistency, goodness of fit, perdiction of other behavior *in situ* and in relevant other situations." In line with this conception the relative difficulty of the 17 blinds of a multiple-T maze was determined at successive stages of learning. 1085 rats from the P to F_8 generations of the selective breeding experiment provided data. Relative difficulty of blinds changed from trial to trial. Analysis of difficulties associated with each blind suggested the following psychological components of maze performance: direction sets, food-pointing, short cut, counter tendency, centrifugal swing, adaptation, lassitude, exit gradient, inertia, and conflict. These described the performances of both dull and bright strains. However, bright rats evidenced "the more abstract cognitive types" earlier than did the dull ones. The author's general theory of psychological components consists of a statement of (1) properties of components, (2) characteristics of coalitions of components, and (3) the nature of learning.—*N. L. Munn* (Vanderbilt).

775. **Wedell, C. H., Taylor, F. V., & Skolnick, A. An attempt to condition the pupillary response.** *J. exp. Psychol.*, 1940, **27,** 517–531.—"An attempt was made to condition the change in size of the pupil in response to changes in the intensity of light to a tone of 1024 cycles or the sound of a buzzer. Many subliminal and supraliminal levels of auditory stimuli were employed. No conditioning was obtained although the conditions under which a previously successful attempt was made by another experimenter were duplicated as far as possible. It is pointed out that these conditions were not ideal for the establishment of a conditioned response, and that the failure means that some unreported or unknown factors must have contributed to the success of the previous attempt."—*H. W. Karn* (Pittsburgh).

776. **Welch, L., & Long, L. A further investigation of the higher structural phases of concept formation.** *J. Psychol.*, 1940, **10,** 211–220.—54 children were trained to associate different species and class concept names (nonsense syllables) with the same objects (a cube and a cylinder) when these objects were used in different situations. The situations were a bowling alley game, beating a drum, and placing the objects on a balance. The development of concepts may occur in 2 directions. (1) It may be vertical, as when one learns the names of particular objects, then the first hierarchy concept including these objects, and then the second hierarchy concept including the objects of 2 or more first hierarchies. (2) It may be horizontal. In this case a stimulus may at one time be perceived as belonging to one species in one situation and to another species in a different situation. The results of the experiment showed that it was more difficult for the children to learn the concept of the second hierarchy in the vertical process of mastery than it was to learn the concepts of 3 different first hierarchies in the horizontal process.—*F. A. Mote, Jr.* (Connecticut).

777. **Zerga, J. E. An introductory investigation of learning behavior in birds.** *J. comp. Psychol.*, 1940, **30,** 337–346.—A maze consisting of perches was devised for use with small birds. The bird starts at the bottom perch and is required to hop upon successive perches leading upward in a vertical or diagonal direction. Curves for 4 roller canaries learning with and without food and water motivation are presented.—*N. L. Munn* (Vanderbilt).

778. **Zissulescu, Ş. Psihologia fantaziei creatoare.** (The psychology of creative imagination.) *Anal. Psihol.*, 1939, **6,** 38–111.—This research based on numerous experiments, including the Wartegg test, attempts to determine the character and types of imagination. The internal processes of imagination develop in accordance with 3 determining factors: intellect, affect, and unconscious factors. The following phases in the development of imagination are distinguished: Up to the age of 3 imagination remains mainly receptive; between 3 and 6 years it manifests itself most and is characterized by animism; after the age of 6 the child differentiates freely between dream and reality. Between 12 and 13 years the critical spirit appears. At puberty imagination functions as much about things of the past as of those in the future. The years that follow direct the imagination towards creativity. Imagination assumes different types: artistic, scientific, practical; each of these is subdivided into numerous degrees of a general or particular, static or dynamic, objective or subjective type. Among abnormals imagination exists according to the degree of abnormality. Idiots lack it completely and imbeciles evidence it sporadically.—*S. M. Strong* (Howard).

[See also abstracts 744, 745, 779, 810, 811, 857, 865, 897, 943, 948, 952, 987, 1063, 1105, 1109, 1110, 1118, 1124, 1128, 1131.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

779. **Barmack, J. E. The effect of 10 mg. of benzedrine sulfate on the Otis test scores of college students.** *Amer. J. Psychiat.*, 1940, **97**, 163–166.—2 groups were studied: one received benzedrine on the first examination, and a placebo on the second; for the second group the procedure was reversed. Forms A & B of the Otis (higher form) were used, and benzedrine was found to be without favorable effect on the scores. A small but statistically significant practice effect was noted upon retesting.—*R. Goldman* (Boston Psychopathic Hospital).

780. **Barrera, S. E., & Pacella, B. L. Effects of "sensory" cortical lesions on grasp phenomena in the Macacus rhesus.** *Amer. J. Physiol.*, 1940, **129**, 307.—Abstract.

781. **Belinky, A. R. High atmospheric pressures: physiological effects of increased and decreased pressure; application of these findings to clinical medicine.** *Ann. intern. Med.*, 1940, **13**, 2217–2228.—*W. J. Brogden* (Wisconsin).

782. **Bertocci, P. A. A critique of G. W. Allport's theory of motivation.** *Psychol. Rev.*, 1940, **47**, 501–532.—This is an examination of the arguments advanced by Allport against McDougall's instinct and hormic theory, and a defense of the latter's theory of motivation against Allport's theory of functional autonomy and traits. Part I presents the essence of McDougall's theory, namely that "human psycho-physiological organisms share common goal-seeking processes which predetermine in a general way only the directions of active response." Answers are then given to the arguments concerning maturation, law of parsimony, and uniqueness of individual's purposes as opposed to generalized goals. It is denied that purposive action can be derived from non-purposive activity. Part II compares the concepts of propensities, functional autonomy, and traits, taking up the limitations of infantile motives for adult behavior, and denying that traits offer an adequate support for the unity and continuity of personality, without the assumption of underlying propensities which are satisfied through them. It is suggested that the concepts of propensities, sentiments, and traits are not necessorily mutually exclusive, but that a synthesis can be achieved in which they are looked upon as stages in a continuous developmental series.—*A. G. Bills* (Cincinnati).

783. **Biel, W. C., & O'Kelly, L. I. The effect of cortical lesions on emotional and regressive behavior in the rat. I. Emotional behavior.** *J. comp. Psychol.*, 1940, **30**, 221–240.—In an attempt to determine whether variously located small cerebral lesions might alter the inhibitory functioning of the cortex sufficiently to produce changes in defecation and field activity scores, the authors tested 23 operated and 57 control animals (with and without skin incisions) in an open field situation. No significant differences between scores of experimental and control groups were observed. There were likewise no significant correlations between size of lesion and defecation and activity scores. Extensive bibliography.—*N. L. Munn* (Vanderbilt).

784. **Brogden, E., & Hellebrandt, F. A. Post-exercise orthostatic collapse.** *Amer. J. Physiol.*, 1940, **129**, 318.—Abstract.

785. **Bromiley, R. B., & Brooks, C. McC. Role of neocortex in the control of certain postural responses of the opossum (Didelphys virginiana).** *Amer. J. Physiol.*, 1940, **129**, 319.—Abstract.

786. **Cannon, W. B. The wisdom of the body.** (Rev. ed.) New York: Norton, 1939. Pp. 333. $3.50.—"In this second edition new facts and developments in the realm of bodily stabilization have been incorporated in order to bring the exposition up to date; and also a new chapter has been added, on the effects of age on homeostatic mechanisms."—*H. L. Ansbacher* (Brown).

787. **Clark, B., & Warren, N. A photographic study of reading during a sixty-five-hour vigil.** *J. educ. Psychol.*, 1940, **31**, 383–390.—No uniform changes in the behavior of the eyes were shown with prolonged wakefulness. Importance of periodic tests during experimental fatigue is stressed.—*R. M. Bellows* (Maryland).

788. **Davis, R. C. Set and muscular tension.** *Ind. Univ. Publ. Sci. Ser.*, 1940, No. 10. Pp. 30.—The purpose of this study is to discover whether, and to what extent, muscular processes show the properties of sets. Oscillographic records of fore-arm action potentials in a reaction-time situation were taken from 24 subjects. Study was made of: (1) potentials during the rest period and at the beginning and end of the fore-period; (2) relation between potentials and reaction times; (3) development of potential during fore-period; (4) potentials in regular and irregular fore-periods; and (5) changes in potential with practice. It is shown that local muscle tension has many properties of set; a tentative hypothesis is advanced according to which set is of the nature of a general muscular and glandular pattern of tension.—*C. M. Louttit* (Indiana).

789. **Enzer, N., & Simonson, E. Experiments to determine the effect of circulatory failure on some simple functions of the central nervous system.** *Dis. nerv. Syst.*, 1940, **1**, 382.—Abstract.

790. **Franke, F. E., & Hertzman, A. B. Effects of cigarette smoking on the skin circulation.** *Amer. J. Physiol.*, 1940, **129**, 357.—Abstract.

791. **Freeman, G. L. Dr. Hollingworth on chewing as a technique of relaxation.** *Psychol. Rev.*, 1940, **47**, 491–493.—Hollingworth's finding, that chewing gum reduces restlessness and tension and facilitates one's major performance, was corroborated in an experiment by the author in which chewing gum was compared with tapping the foot as a motor automatism accompanying stylus maze learning. But both were equally effective and were superior to a control condition in which no automatism was used (unless too much attention was given to them). Therefore, Hollingworth's explanation of the effect,

in terms of the value of chewing as a redintegrative cue in reestablishing the relaxed attitude of mealtime, cannot be accepted. Rather, the motor automatism must be considered a compensatory mechanism for working off excessive neuromuscular excitation.—*A. G. Bills* (Cincinnati).

792. **Fry, G. A., & Haines, H. F. Tait's analysis of the accommodation-convergence relationship.** *Amer. J. Optom.*, 1940, **17**, 393–401.—The reciprocal reflex association between convergence and accomodation, postulated by Tait, was considered to be demonstrated by a negative correlation between negative relative accommodation and accommodative convergence. Fry and Haines show that this negative correlation may be regarded merely as a consequence of the positive correlation between total positive fusional convergence and exophoria at near. They conclude that Tait's correlation is not of fundamental significance, but follows from relationships accounted for in Maddox's analysis of the innervation to accommodation and convergence.—*M. R. Stoll* (American Optical Company).

793. **Gantt, W. H. Effect of alcohol on sexual reflexes in dogs.** *Amer. J. Psysiol.*, 1940, **129**, 360.—Abstract.

794. **Guyton, J. S. Pharmacodynamics of the intraocular muscles.** *Arch. Ophthal., Chicago*, 1940, **24**, 555–580.—The physiological effects of various miotics and mydratics are analyzed in the light of existing knowledge of drug action on the autonomic nervous system and on the ciliary and iris muscles, when used in different concentrations, combinations, and circumstances.—*M. R. Stoll* (American Optical Company).

795. **Hardy, J. D., Wolff, H. G., & Goodell, H. Studies on pain. The analgesic action of morphine and codeine in man.** *Amer. J. Physiol.*, 1940, **129**, 375.—Abstract.

796. **Harrison, F. An attempt to produce sleep by diencephalic stimulation.** *J. Neurophysiol.*, 1940, **3**, 156–165.—Destructive and stimulating electrical currents were applied to a number of diencephalic areas. Somnolence was produced by destructive currents when applied to the lateral hypothalamic area and to the lateral group of thalamic nuclei. When the resulting lesions involved medial and caudal parts of the hypothalamus catalepsy tended to develop. Somnolence did not result from lesions in the head of the caudate nucleus. Since stimulating currents never resulted in somnolence, no evidence was obtained in support of the theory that sleep is a phenomenon of active inhibition.—*C. E. Henry* (Brown).

797. **Hellebrandt, F. A., Rork, R., & Brogdon, E. The effect of gelatine on the power of women to perform anaerobic work.** *Amer. J. Physiol.*, 1940, **129**, 379.—Abstract.

798. **Jacobson, E. Variations of muscular tension (action-potentials) in man.** *Amer. J. Physiol.*, 1940, **129**, 388.—Abstract.

799. **Janzen, R., & Behnsen, G. Beitrag zur Pathophysiologie des Anfallsgeschehens, insbesondere des kataplektischen Anfalls, bei Narkolepsiesyndrom.** (Contribution to the pathophysiology of attack phenomena, especially the cataplectic attack in the narcolepsy syndrome.) *Arch. Psychiat. Nervenkr.*, 1940, **111**, 178–189.—A report of a case having cataplectic attacks, preceded by sudden anxiety, sadness, and weeping, and followed by narcolepsy. Electroencephalograms were made during all phases of the cycle and during the patient's normal sleep. The electroencephalograms of the attacks showed sudden and uniformly distributed loss of tension over the convexity, strikingly similar to physiological sleep. Those of the patient's normal sleep, clinically different forms of attacks associated with loss of tonus, and narcolepsy were indistinguishable. There was no special equivalent for anxiety. From these findings it appears that the changes in cortical activity are secondary to subcortical disturbances. The nature of the process is entirely different from idiopathic epilepsy. In the narcoleptic syndrome there seems to be an extension of a physiological function into the pathological.—*M. E. Morse* (Baltimore).

800. **Keller, A. D. Rage readily elicitable in a dog with descending hypothalamic fibers severed.** *Amer. J. Physiol.*, 1940, **129**, 396.—Abstract.

801. **Kennard, M. A. Relation of age to motor impairment in man and subhuman primates.** *Arch. Neurol. Psychiat., Chicago*, 1940, **43**, 377–397.—Evidence obtained from experimentation on subhuman primates shows that the central nervous system of the infant is potentially different from that of the adult, as manifested by motor deficits which appear after known cortical ablations. This is corroborated by clinical evidence obtained by the study of the human infant. Absence of cortical motor areas is not accompanied by any marked and noticeable motor deficit in the infant before complex motor skill has developed. Paresis is first seen after ablation of cortical motor areas in the infant at a time when normally skilled coordinated movements should appear. Spasticity appears somewhat later than paresis. Both effects are less severe in all primates if the causative lesion occurs in infancy.—*W. J. Brogden* (Wisconsin).

802. **Leuba, C. The need for a systematic survey of innate nature.** *Psychol. Rev.*, 1940, **47**, 486–490.—Since the instinct hypothesis was discarded and replaced by a discussion of biological foundations of behavior, motives, and emotion, there has been the need for a valid conception of innate nature to replace the original tendencies and primary propensities taught in basic texts like McDougall's Social Psychology and Thorndike's Educational Psychology. Social scientists need to distinguish between fundamental innate needs and those developed by cultural surroundings. According to the modern view, original nature is what appears in the absence of education, and it is due to interaction of both heredity and environment, rather than representing fixed characteristics which would show themselves regardless of type of environment. Pertinent materials have accumulated from anthro-

pology, physiology, and animal and child psychology in terms of which to build a new picture of man's innate nature.—*A. G. Bills* (Cincinnati).

803. **Levine, A., & Schilder, P. Motor phenomena during nitrogen inhalation.** *Arch. Neurol. Psychiat., Chicago,* 1940, **43,** 1009–1017.—During relatively short periods of cerebral anoxia produced by nitrogen inhalation, the motor sequence may be divided into 4 phases, namely, the stage of restless movements, the myoclonic phase, the rhythmic phase, and the tonic phase. With administration of oxygen, recovery takes place in the reverse order, from the fourth to the first phase. At the height of treatment there is loss of consciousness, for which there is amnesia following recuperation. When the nitrogen inhalation is prolonged up to 10–15 minutes the manifestations are different. There is a tendency toward flaccidity with elimination of the tonic stage. The state of unconsciousness is deeper and the subjects remain confused and show psychologic changes. Signs of involvement of the pyramidal tracts and aphasic difficulties occur only during the course of long treatment.—*W. J. Brogden* (Wisconsin).

804. **Linthicum, F. H. Nystagmography: A method for the graphic recording of nystagmus during and after turning and of caloric nystagmus.** *Arch. Otolaryng., Chicago,* 1940, **32,** 464–477.—*W. J. Brogden* (Wisconsin).

805. **Macht, D. I., & Macht, M. B. Effect of cobra venom and alkaloids on the psychogalvanic reflex.** *Amer. J. Physiol.,* 1940, **129,** 412.—Abstract.

806. **Margolin, S. E., & Bunch, M. E. The relationship between age and the strength of hunger motivation.** *Comp. Psychol. Monogr.,* 1940, 16, Pp. 34.—Using the Columbia obstruction technique these investigators studied the extent to which hunger motivation under various conditions of food deprivation is a function of age. The subjects were 720 male white rats, 240 each at age levels of 30–40, 150–175, and 300–350 days. Periods of deprivation ranged from 1–5 days. 3 intensities of shock were used with different groups. Control groups without shock were also used. Intensity was measured in terms of the number of crossings of the grid in 30 minutes. The results indicate that: (1) there is an inverse relation between age and maximal strength of the drive, (2) there is an age variation in the length of the interval of deprivation leading to maximal strength of drive, (3) there is establishment of the relative standing of the 3 age groups within the first 5 minutes of the test period, (4) distribution of activity during the 5 minute intervals of the test period varies with age, (5) the effect of shock varies with age and strength of drive, and (6) one may question whether crossings under conditions of shock provide a better measure of strength of drive than crossings under no-shock conditions.—*N. L. Munn* (Vanderbilt).

807. **Miyosi, M. [An experimental and theoretical study of fluctuation problems. I.]** *Jap. J. Psychol.,* 1940, **15,** 282–304.—Fluctuation in adding simple numbers continuously was studied. The trend of work efficiency, the amplitudes of the waves, and the external and secondary factors contributing to fluctuation were observed. A physiological interpretation of the Weber-Fechner law and theoretical considerations of the fluctuation mechanism are presented as well as a tentative formula expressing the relation between coefficients of resistance, assimilation and dissimilation, and work time and practice.—*R. Kuroda* (Keijo).

808. **Morgan, C. T., & Morgan, J. D. Studies in hunger: II. The relation of gastric denervation and dietary sugar to the effect of insulin upon food-intake in the rat.** *J. genet. Psychol.,* 1940, **57,** 153–163.—Of 14 albino rats previously trained to secure food by pressing a lever in a modified Skinner apparatus, 1 group of 7 was subjected to section of both vagus nerves; during the operation the stomach was freed entirely from its supporting mesenteries and vascular supply. Following at least 4 days' retraining, all 14 animals were given injections of insulin and saline solutions on alternate days. Animals were placed in the feeding apparatus 0, 15, or 30 mins. after injection and allowed to remain for 1 hour. Insulin increased the number of lever-depressions per 10-min. interval regularly only in the operated group; in the normal group a decrease of the amount of sugar in the diet was necessary to produce a similar effect of insulin. It is concluded that in the control of hunger an organism's nutritive condition may be more directly significant than stomach contractions.—*D. K. Spelt* (Mississippi).

809. **O'Kelly, L. I., & Biel, W. C. The effect of cortical lesions on emotional and regressive behavior in the rat. II. Regressive behavior.** *J. comp. Psychol.,* 1940, **30,** 241–254.—The rats of the preceding study (see XV: 783) were tested for regressive behavior in a T-shaped apparatus. After perfection of a right- or left-turning response, the animals were trained to make the opposite turn. They were then given a shock while approaching the choice point. Both regressive and perseverative behavior was observed. However, the percentage of animals regressing or perseverating was not significantly different for the experimental and control groups. The type of response to shock was not predictable in terms of defecation and activity in an open field, trials to master a straightaway having a paper barrier, and time and trials required to master the T-shaped apparatus.—*N. L. Munn* (Vanderbilt).

810. **Roberts, J. A. F. Intelligence and fertility.** *Ment. Hlth, Lond.,* 1940, **1,** 69–75.

811. **Seitz, C. P., & Barmack, J. E. The effects of 10 mgs. of benzedrine sulfate and low oxygen tension on the span of attention for letters, and other factors.** *J. Psychol.,* 1940, **10,** 241–247.—18 male college students were tested for span of attention for letters under 3 conditions: in normal air after taking a blank pill, in a simulated altitude of 16,000 feet after taking a blank pill, and in the simulated altitude after taking 10 mgs. of benzedrine

sulfate. Subjective rating sheets in regard to fatigue, wandering of attention, effort, distractions, and attitude toward the experiment were filled out by 15 subjects at the end of the hour's experimental session in a Barach portable oxygen chamber. No significant differences were found among the 3 situations in the span of attention for letters. The subjective data suggest that exposure to a simulated altitude of 16,000 feet causes a depression in mood which may be counteracted to some extent by the benzedrine sulfate.—*F. A. Mote, Jr.* (Connecticut).

812. **Seward, J. P. Studies on the reproductive activities of the guinea pig. III. The effect of androgenic hormone on sex drive in males and females.** *J. comp. Psychol.*, 1940, **30**, 435–449.—2 out of 4 castrated male and 3 out of 4 castrated female guinea pigs which were given copulation tests during testosterone propionate injections and control injections of oil exhibited increased copulatory activity while getting the hormone. Testosterone propionate also increased other sexually motivated activities of castrated animals.—*N. L. Munn* (Vanderbilt).

813. **Sigrist, E. Über drei Fälle von genuiner und einen Fall von zerebraler Pubertas praecox.** (Three cases of genuine and one case of cerebral precocious puberty.) *Ann. paediat.*, 1940, **155**, 84–106.—A girl of 7, and two brothers, aged 6½ and 8 years respectively, showed all the physical signs of puberty including marked increase in height and weight. Genitalia, secondary sex characteristics, ossification, and dentition were at or near the adult level. Their mental characteristics, however, were at a level corresponding to their chronological and not to their physiological ages. The theory is advanced that true precocious puberty as shown by these cases represents a form of atavism, a regression to the state of primitive man who is believed to have attained sexual maturity at a much earlier age than is usual among present-day civilized races. The occurrence of this rare condition in each of 2 brothers suggests the influence of some inherited factor. A fourth case, that of a boy of 3 in whom secondary sex characteristics with advanced body length but small testicles were found, was classified as a case of pseudo-precocious puberty.—*F. L. Goodenough* (Minnesota).

814. **Spiegel, E., Miller, H. R., & Oppenheimer, M. J. Efferent forebrain systems involved in the production of rage reactions after decortication.** *Amer. J. Physiol.*, 1940, **129**, 470–471.—Abstract.

815. **Spiegel, E., & Scala, N. Vertical nystagmus produced by lesions of the cerebellar vermis.** *Amer. J. Physiol.*, 1940, **129**, 471.—Abstract.

816. **Squier, T. L. Emotional factors in allergic states.** *Dis. nerv. Syst.*, 1940, **1**, 382.—Abstract.

817. **Stewart, W. B., Judovich, B. D., Hughes, J., & Walti, A. The effect of ammonium chloride on pain.** *Amer. J. Physiol.*, 1940, **129**, 474–475.—Abstract.

818. **Stone, C. P., & Ferguson, L. W. Temporal relationships in the copulatory acts of adult male rats.** *J. comp. Psychol.*, 1940, **30**, 419–434.—A high speed motion picture camera was used to photograph the copulatory activity of white rats, the aim being to determine the time required for various aspects of the copulation pattern of behavior. Duration of intromission in non-ejaculatory copulations ranged from ¼–¾ seconds, in ejaculatory copulations from 1–4 seconds. The mean number of pelvic strokes was 5.6 for non-ejaculatory and 10.7 for ejaculatory copulations. 3 hour copulation tests led to satiation in about 50% of the cases and to near satiation in all others. Profiles for different animals evidence much variability with some evidence of individual consistency. The comparison of results for short and long tests showed that the former had no predictive value for the latter. Males allowed unrestricted sexual activity for 2 hours became relatively unaggressive and had few waves of copulation the next night. Recovery time from copulatory satiation is much longer than the recovery time for either thirst or hunger, which fact "is highly relevant in comparative studies of drives." Photographs and profiles of copulatory sequences.—*N. L. Munn* (Vanderbilt).

819. **Tucker, W. B., & Lessa, W. A. Man: a constitutional study.** *Quart. Rev. Biol.*, 1940, **15**, 265–289.—The nature of constitution is treated under: a multi-sided problem, conflicting theories regarding its nature, the inheritance of constitutional factors, other factors in the determination of constitution, a final definition, and the unity of constitutional knowledge. The paper is continued to the following issue. Under inheritence are considered: morphological, physiological, and psychological characters.—*O. W. Richards* (Spencer Lens Company).

820. **Ury, B., & Oldberg, E. Effect of cortical lesions on affective pupillary reactions.** *J. Neurophysiol.*, 1940, **3**, 201–212.—Dilation of the pupil, caused by inhibition of the Edinger-Westphal nucleus, was the indicator used in determining the threshold for pain reactions produced by electric shocks to the toe pads. A large number of experiments were performed on 10 cats with lesions of the sensory area of the cortex, of the sensory and motor areas, and of more extensive regions. Ablation of sensory or sensorimotor cortex did not raise the threshold to pain reactions. Extensive ablations lowered the threshold. Pupillary dilation was obtained by cortical stimulation in regions other than the somato-sensory system, namely, frontal, temporal, and occipital fields. The results indicate that the threshold of pupillary dilation to pain is subcortically determined. A scheme for interpreting pupillary reactions in terms of the central and peripheral mechanisms involved is presented.—*D. B. Lindsley* (Brown).

821. **Ward, D. F. Dip in work curves.** *Brit. J. Psychol.*, 1940, **31**, 162–171.—In this study of mental fatigue 80 college students were given a Kraepelin adding test, adding 2 to each number along a row, and beginning a fresh row every 5 sec. 3 groups worked for 1200, 1500, and 1800 sec. re-

spectively. Dip or downward bulging occurred in all the curves studied during the time from 400–800 sec. after the beginning of the work. After this time a gradual improvement in output was observed, but the curves became more irregular. Rapid drop in initial output does not necessarily show that output in the latter part of the test will be more erratic. The beginning of the dip region is accompanied by feelings of conflict; when this disappears, the rate of output increases together with the amplitude of the curve.—*M. D. Vernon* (Cambridge, England).

822. **Watters, T. A. The emotional factor in disease.** *Dis. nerv. Syst.*, 1940, **1**, 259; 287–288.—The paradox that emotions cause visceral disorders, although there is an unwillingness to acknowledge their physical effects, and the effect of present day civilization on the physiology of emotions are discussed. The most important factor in the diagnosis and treatment of unsettled cases is a willingness to think of the possibility of emotional factors at work.—*C. E. Henry* (Brown).

823. **Weiss, P. Development and persistence of fundamental motor patterns in the absence of sensory control.** *Amer. J. Physiol.*, 1940, **129**, 492. —Abstract.

824. **Young, P. T., & Wittenborn, J. R. Food preferences of rachitic and normal rats.** *J. comp. Psychol.*, 1940, **30**, 261–275.—The aim of this investigation was to ascertain whether rats reared on a rachitic diet would prefer foods containing vitamin D, known to be beneficial in correction of rickets. Groups of normal and deficient animals derived by means of the split-litter technique were given a choice of Wesson oil with and without viosterol. No difference in the preferences of the groups was found. When they were given a choice between whole wheat flour and cane sugar the deficient animals showed an initial preference for flour. The controls manifested an initial preference for sugar. Both groups eventually selected sugar predominantly. There is thus little, if any, evidence that rachitic rats prefer foods containing vitamin D.—*N. L. Munn* (Vanderbilt).

[See also abstracts 640, 649, 654, 655, 660, 662, 663, 666, 667, 674, 677, 682, 683, 684, 693, 694, 695, 697, 703, 708, 710, 718, 723, 725, 726, 732, 737, 738, 755, 757, 760, 768, 837, 838, 873, 889, 890, 918, 920, 961, 1003, 1007, 1029, 1091, 1104, 1109, 1112, 1115, 1120, 1122.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

825. **Agadjanian, K. Introduction à l'étude expérimentale du problème de l'hallucination.** (Introduction to the experimental study of the problem of hallucination.) *Arch. int. Neurol.*, 1939–40.—[Abstracted review; original not seen.] The author reviews his own extensive researches in the artificial production of hallucinations, chiefly by the use of mescal. Psychogalvanic reactions, records of chronaxie, electroencephalograms, and other devices especially designed for the study of various neurological and physiological reactions were employed. On the basis of the findings a theory of the mechanisms giving rise to hallucinations is proposed.—*F. L. Goodenough* (Minnesota).

826. **Bullard, D. M. Experiences in the psychoanalytic treatment of psychotics.** *Psychoanal. Quart.*, 1940, **9**, 493–504.—The difficulties in the psychoanalytic treatment of psychotic patients which arise from comments by the analysts, from actual incidental experiences, and from ideas which the patient develops between analytic hours are discussed. Singly or in combination they may arouse emotional reactions of such intensity that rapport is weakened or destroyed. Clinical examples illustrating these difficulties and their effect upon the analysis and disclosing the need of meeting such disturbances adequately as they arise are discussed. —*M. H. Erickson* (Eloise Hospital).

827. **Federn, P., & Meng, H. Das psychoanalytische Volksbuch.** (Psychoanalysis for the laity.) Bern: Huber-Verlag, 1939. Pp. 736.—[Abstracted review; original not seen.] A nontechnical interpretation of psychoanalytic theory and practice.—*F. L. Goodenough* (Minnesota).

828. **Hallowell, A. I. Freudian symbolism in the dream of a Saulteaux Indian.** *Man*, 1938, **38**, 47–48. —As corroboration of Seligman's hypothesis that certain objects have the same value in the unconscious of savages as psychoanalysts attribute to them in Europeans, the writer recounts an analysis of an Indian guide's dream. In this dream money is apparently unconsciously identified with faeces. Such an interpretation fits into the circumstances under which the dream occurred, indicating the existence of repressed aggression.—*F. W. Finger* (Brown).

829. **Knapp, A. Die epileptischen Dämmerzustände.** (Epileptic twilight states.) *Arch. Psychiat. Nervenkr.*, 1940, **111**, 322–340.—A review of the subject with special emphasis on the similarity of the inner experiences to normal dream life, the legal aspects, and the interval equivalents. In the latter, the most striking symptom is not clouding but narrowing of consciousness, which shuts off a great part of the personality. The apparent equality of the two phases of a resulting duel personality belongs to sensational literature. Actually the second personality is always inferior, poor in psychic content, incapable of responsible independent activity, and often ruled by repressed wishes of the usual personality. These interval equivalents are of great practical importance, and exceptional opportunities to observe them are found among migratory workers, in homes for the unemployed, night-lodging houses, and rescue missions. The grandiose religious content of the dream experiences of twilight states has played a part in all religions. All twilight states have a common characteristic, i.e., incomprehensible movements, senseless words or sounds, and bizarre automatic actions, which often break in suddenly.—*M. E. Morse* (Baltimore).

830. **Reik, T. From thirty years with Freud.** (Trans. by R. Winston.) New York: Farrar & Rinehart, 1940. Pp. xi + 241. $2.50.—A collection of essays presenting the author's memories of Freud, an unknown lecture of Freud, Freud as a critic of our culture, and diverse subjects treated from the psychoanalytic standpoint. Several of these articles have appeared elsewhere before, mostly in German. The final group of essays, originally dedicated to Freud on his successive birthdays, deal with embarrassment in greeting, the latent meaning of elliptical distortion, and the nature of Jewish wit.—*S. Rosenzweig* (Worcester State Hospital).

831. **Rhine, J. B. Extra-sensory perception: a review.** *Sci. Mon., N. Y.*, 1940, **51**, 450–459.—A brief early history of the subject, the methods employed and results obtained during the past 6 years at Duke University and elsewhere, and a discussion of the nature of ESP are presented. The writer believes that the present experimental results are statistically significant and cannot be explained away by sensory cues, recording errors, or lack of competence and trustworthiness in the experimenters.—*O. P. Lester* (Buffalo).

832. **Saul, L. J. Utilization of early current dreams in formulating psychoanalytic cases.** *Psychoanal. Quart.*, 1940, **9**, 453–469.—The analytic patient's first communications and early dreams are of great importance, since they serve to give a reliable though abbreviated picture in dynamic and psychic-economic terms of both the patient's general psychological structure and the current status of his conflicts and his ego. This fact is demonstrated by the systematic study of the first 10 current dreams of 4 males suffering hypertension, a procedure permitting in each instance a concise formulation expressing the main psychological features of the patient, with subsequent verification by further analysis. The author emphasizes the importance of the procedure in the comparison of the nuclear conflict and its status in different psychosomatic and psychoneurotic conditions, and the possibility for early formulations of therapeutic goals.—*M. H. Erickson* (Eloise Hospital).

833. **Sterba, R. Aggression in the rescue fantasy.** *Psychoanal. Quart.*, 1940, **9**, 505–508.—Analytic investigation discloses that rescue fantasies first bring the object to be rescued into danger before a rescue can be effected. Hence, the fantasy is an aggression against the object, as well as a protection of it. Illustrative clinical instances are cited and discussed.—*M. H. Erickson* (Eloise Hospital).

[See also abstracts 672, 976.]

FUNCTIONAL DISORDERS

834. **Alexander, G. H. Psychotherapy and the psychotherapist: new orientations.** *Psychosom. Med.*, 1940, **2**, 304–310.—The uncritical and vague use of the terms psychotherapy and psychotherapist has led to confusion of understanding and practice. Psychotherapy, which is more of an art than a science, is defined as "the intelligently directed, individually adapted use of psychopathological theory and practice in the treatment of illness." The use of the term should be restricted to the field of medicine and only specially trained physicians can be legitimate psychotherapists.—*P. S. de Q. Cabot* (Simmons).

835. **Alford, L. B. A simple version of aphasia.** *J. nerv. ment. Dis.*, 1940, **91**, 190–209.—Two principles are introduced to simplify and clarify the confusion in this field: (1) the aphasic mentality is complete, but unstable and subject to fatigue and confusion; (2) in brain lesions due to edema, pressure and circulatory changes may affect structures through a distance and prolongedly. From this viewpoint visual agnosia becomes a combination of disturbed visual impressions due to the action of edema on the visual tracts and of an unstable mentality confused by the effort to visualize under difficulties. Semantic aphasia is found to be a purely mental disturbance, and nominal aphasia depends on an unstable mentality with a functional amnesia for names and a mild speech disturbance. Mature discriminating study is needed for the evaluation of intelligence and comprehension in aphasia. The mental aberrations encountered in aphasia are ascribed to momentary confusion. Recent results from brain surgery support the view that speech disturbances are not produced by lesions beyond the central gyri, with earlier findings due to reactions from a distance. Visual disturbances arise from edema and pressure originating from lesions in the occipital convexities. Mental confusion and clouding seem necessarily produced only by lesions in the left optic thalamus.—*R. C. Moore* (Boston Psychopathic Hospital).

836. **Alpers, B. J. Personality and emotional disorders associated with hypothalamic lesions.** *Psychosom. Med.*, 1940, **2**, 286–303.—See XV: 660.

837. **Angyal, A., & Blackman, N. Vestibular reactivity in schizophrenia.** *Arch. Neurol. Psychiat., Chicago*, 1940, **43**, 611–620.—A group of 58 unselected male schizophrenia patients showed fewer nystagmic beats and a lower frequency of nystagmic beat to both caloric and rotational stimulation than did 20 normal controls. The degree of reduction of vestibular reactivity was not correlated with the duration of hospitalization or with the conventional subtypes of schizophrenia.—*W. J. Brogden* (Wisconsin).

838. **Auer, E. T., & Smith, K. U. Characteristics of epileptoid convulsive reactions produced in rats by auditory stimulation.** *J. comp. Psychol.*, 1940, **30**, 255–259.—A specially devised stabilimeter was used to obtain kymograph records of convulsive activity produced by the sound of a high pitched whistle. 30% of 400 rats tested by this method exhibited convulsions. Typical records and data on latency of the convulsive reactions for 10 rats are presented. The duration of various aspects of the seizures is also discussed. The writers believe that the behavior observed is not a conflict neurosis but an

epileptoid reaction. Similarity of such reactions in rats and in human beings is stressed.—*N. L. Munn* (Vanderbilt).

839. **Bainbridge, W. S. Somatic factors in mental and nerve conditions.** *J. roy. Inst. publ. Hlth Hyg.*, 1940, **3**, 173–183.

840. **Benda, C. E. The central nervous system in Mongolism.** *Amer. J. ment. Def.*, 1940, **45**, 42–47.—Study of 18 mongoloid brains and 10 spinal cords showed that mongolism is associated with a very particular pathology. Of foremost interest is the shape of the brain. Fusion of fissures is seen, convolutions are frequently drum-stick, cortical lamination is confused, irregularities of gray matter are common, myelination is pathological, degenerative processes are present, tissue is mottled, an edema of the nerve tissue with suffocation of the cells is an important feature, and in the white matter there are patchy necrosis with softening and demyelination. The vascular system showed no striking pathology. Not one case indicated an agenesis of the central nervous system. Evidence pointed to the presence of extrinsic factors (within the blood stream) acting upon the brain. A deficiency of the pituitary gland appeared causative.—*M. W. Kuenzel* (Children's Home, Cincinnati).

841. **Bender, L. The Goodenough test (drawing a man) in chronic encephalitis in children.** *J. nerv. ment. Dis.*, 1940, **91**, 277–286.—The Goodenough test of drawing a man is essentially a maturation test involving the apperception of the body image. Differences between performance on the test by normal children and other groups have been pointed out. The present study notes the discrepancy between Stanford-Binet performance and the drawing of a man in cases of chronic encephalitis in children. The drawings from 6 such cases are presented and discussed. The poor performance of these patients is regarded as a special disability, since other drawing is not affected, and represents an apperception of the postural model probably arising from perceptual difficulties in relation to the subject's own body rather than in optic perception. The importance of motility for the development of the body image is stressed.—*R. C. Moore* (Boston Psychopathic Hospital).

842. **Bennett, A. E., Purdy, A. B., & Jordan, H. M. The history and development of modern psychiatric nursing.** *Dis. nerv. Syst.*, 1940, **1**, 265–272.—The history of the treatment of the mentally ill is reviewed under the headings: introduction, primitive period, classical period, transition period, first half of modern period, modern psychiatric treatment, American psychiatric hospital development, and psychiatric treatment in general hospitals. The need for doctors, and more especially, nurses and attendents with adequate psychiatric training is emphasized. The general hospital must be expanded to provide early care for potential mental patients. The individual personality make-up of the patient must be considered if full social recovery is to be effected.—*C. E. Henry* (Brown).

843. **Bergler, E. Four types of neurotic indecisiveness.** *Psychoanal. Quart.*, 1940, **9**, 481–492.—Neurotic indecisiveness is grouped into 4 types: (1) resulting from acting out a magic gesture, (2) resulting from the withdrawal of an unconscious prop against guilt feelings, (3) combined with retrospective enthusiasm, (4) a pseudo type with oral neuroses. These forms are discussed in terms of analytic data from illustrative cases, to disclose the origin of the symptom and to explain the additional and accessory defense mechanisms utilized by the patients.—*M. H. Erickson* (Eloise Hospital).

844. **Bieber, I. Grasping, "forced" and "non-forced."** *J. nerv. ment. Dis.*, 1940, **91**, 417–422.—Forced grasping is indicative of frontal lobe pathology, but the features differentiating the forced from the non-forced grasp have not been clearly brought out. The author cites cases illustrating both types, and concludes that grasping is forced, and significant of frontal lobe pathology only if tonic innervation is present, unilaterally, and in a patient who, able to comprehend commands, cannot relax his grasp when told to. Non-forced grasping is bilateral, can be relaxed without difficulty on command, and lacks the feature of tonic innervation while the tonus changes may be varied and inconsistent.—*R. C. Moore* (Boston Psychopathic Hospital).

845. **Bourne, G., & Wittkower, E. Psychological treatment of cases with cardiac pain.** *Brit. Heart J.*, 1940, **2**, 25–32.—[Abstracted review; original not seen.] A report of the psychological treatment of 12 patients suffering from cardiac pain over a period of 2 years all of whom had been previously treated 1–13 years by physical means. The average length of psychotherapeutic treatment was 60 hours per patient. Improvement is noted as follows: after 4 months of therapy 6 patients lost cardiac pain, and 3 incapacitated patients returned to work. 5 of the 12 cases had angina of effort, and of these, 2 were completely relieved and in 2 others occupational efficiency was restored. The psychotherapy had no effect upon the organic disease.—*P. S. de Q. Cabot* (Simmons).

846. **Boyer, G. F. The psychoneuroses of war.** *Canad. med. Ass. J.*, 1940, **43**, 53–59.

847. **Brown, J. F., & Menninger, K. A. The psychodynamics of abnormal behavior.** New York: McGraw-Hill, 1940. Pp. xvi + 484. $3.50.—This textbook, written from the standpoint of psychoanalysis and Gestalt psychology, presents a systematic treatment of the theoretical background of abnormal behavior in terms of its cause, significance, and purpose. Part I, the organismic viewpoint, 3 chapters, deals with the concepts of normality, abnormality, and personality, the historical development of psychopathology, and the psychosomatic problem. Part II, symptomatology, 4 chapters, discusses modern concepts of symptoms, and abnormalities of cognitive, motor, and emotional processes. Part III, the theory of the structure and genesis of the personality, 6 chapters, deals with the methodological basis of psychodynamic theory,

psychoanalysis, including a critical discussion of psychoanalysis, and other theoretical approaches. Part IV, psychiatry, 8 chapters, discusses the various forms of mental illness, character disorders, and genius. Part V, the future of psychodynamic theory, 1 chapter, deals with the probabilities of experimental, comparative, topological, and other approaches to the development of psychodynamics. Each chapter is summarized, and an 18-page bibliography, with emphasis upon the more recent literature, and indices of authors and subject matter are given.—*M. H. Erickson* (Eloise Hospital).

848. **Cathcart, J. P. S. Mental illness and war.** *Nat. Hlth Rev., Ottawa*, 1940, **8**, 149–151.

849. **Cavell, R. W. Treatment of the nervous patient.** *Dis. nerv. Syst.*, 1940, **1**, 368–373.—Treatment of the neurotic patient must be along psychobiological and psychotherapeutic lines. Any organic disability must be cleared up, and the patient must be led to accept the fact that his difficulty, even though justified, is psychogenic in origin. The patient must be aware of his prognosis and feel responsible for getting well. Therapeutic measures should aim at increasing his physical well-being and be supplemented by a better control of his environment. Suggestive therapy is of considerable value. Personality study through confidential interview serves to integrate the whole treatment, which of course must often be modified as reorientation is achieved. No time limit for length of treatment can be specified, and the final results are seldom completely satisfactory.—*C. E. Henry* (Brown).

850. **Conlogue, E. F. Mental and nervous phenomena in tuberculosis.** *Amer. Rev. Tuberc.*, 1940, **42**, 161–173.

851. **Conrad, K. Zwillingspathologie.** (Pathology of twins.) *Fortschr. Neurol. Psychiat.*, 1940, **12**, 210–234.—From the large amount of material published since 1937 on twin studies many papers dealing with the method, character traits, psychoses, psychopathology, neurology, and various allied fields are discussed. Bibliography of 127 titles.—*D. S. Oberlin* (Delaware State Hospital).

852. **Curtis, W. B. Psychosomatic relationships.** *Kentucky med. J.*, 1940, **38**, 313–318.

853. **Dalrymple, G. How your mind works.** Mountain View, Calif.: Pacific Press Publishing Association, 1940. Pp. 160. $1.25.—A handbook of mental hygiene.—(Courtesy *Publishers' Weekly*).

854. **Daniels, G. E. Treatment of a case of ulcerative colitis associated with hysterical depression.** *Psychosom. Med.*, 1940, **2**, 276–285.—A 32 year old housewife was observed psychiatrically during the most of the 5 years of her fourth attack of ulcerative colitis. Medical procedures had relatively little effect on the disease process while psychotherapy was an important factor in its arrest and in the social recovery of the patient.—*P. S. de Q. Cabot* (Simmons).

855. **Darrah, L. Shall we differentiate between schizophrenia and dementia praecox?** *J. nerv. ment. Dis.*, 1940, **91**, 323–328.—It is suggested that the term dementia praecox be used for such cases as show insidious development during puberty or early life; neuropathic endowment often with asthenic or dysplastic habitus; loss of weight; severity of symptoms; continuation to steady deterioration. In schizophrenia on the other hand would be cases where the onset is sudden, precipitated by some environmental distress or conflict; the patient is never completely inaccessible; there is no familial predisposition; habitus is seldom asthenic or dysplastic; the symptoms are always mild; weight is frequently gained; the process may stop at any phase with long remission or complete recovery, and the process is always non-deteriorating. 4 cases are cited in illustration.—*R. C. Moore* (Boston Psychopathic Hospital).

856. **Davidoff, E., & Hoch, P. Further observations on psychoses in relation to head injuries and their classification.** *Dis. nerv. Syst.*, 1940, **1**, 377–381.—The mental states resulting from head injuries are classified into acute, subacute, and chronic types. The chronic state category is further subclassified to differentiate among mental deterioration, personality disorder, and neuroses. Both the previous personality and the organic findings are of importance. Finally, mixed types of more than one etiologic factor may be present.—*C. E. Henry* (Brown).

857. **Desmonts, M. Troubles fonctionnels et reflexes conditionnels.** (Functional disturbances and conditioned reflexes.) Montpellier: Paleirac Valat, 1938. Pp. 172. Fr. 49.—[Abstracted review; original not seen.] The operation of conditioned reflexes is seen in paralytic, convulsive, vaso-motor, sensitive, and hormonal disturbances. The author takes affect into account as a cause of functional disturbances.—*S. M. Strong* (Howard).

858. **Disertori, B. Sulla biologia dell'isterismo.** (The biology of hysteria.) *Riv. sper. Freniat.*, 1939, **63**, 251–348.—Disertori reports a clinical, experimental, and psychological study of a man who had a postencephalitic extrapyramidal syndrome, neurovegetative phenomena, lethargic episodes, and somnambulism. The hysterical mentality, which amounted to a double personality, was evidenced by excessive emotionalism and suggestibility and a tendency to fixation of inhibitory conditioned reflexes. Disertori believes that psychogenic dissociation, somnambulism, and hypnosis are similar to partial sleep and are due to hyperexcitability of the hypothalamus, which has an inhibitory action on the cerebral cortex. The hypothalamic centers are activated by emotion, suggestion, and conditioned reflexes. Diencephalic lesions have a basic importance in predisposing to hysterical dissociation. The biological theory is not opposed to the psychological, but only emphasizes the biological substratum.—*M. E. Morse* (Baltimore).

859. **Doi, M. Die Tat einer mandschurischen Hausfrau infolge von Besessenheitswahn.** (The criminal act of a Manchurian housewife due to

obsession.) *Arb. Psychiat. Inst. Sendai*, 1940, **7**, 18–39.—A Manchurian housewife, aged 36 years, decapitated her husband with a hatchet in a state of delirium in which she received an oracle from *Kôsendaiya*, a fox-ghost, to kill her husband in order to cure his illness.—*R. Kuroda* (Keijo).

860. **D(oll), E. A. Mental development and heredity.** *J. consult. Psychol.*, 1940, **4**, 243–244.—The author records some excerpts from a reply to a request for criticism of a current article concerning the development of children of feebleminded and normal mothers. Points noted are: (1) Feeblemindedness should be determined clinically and not by IQ. (2) Most studies assume that the etiology of feebleminded mothers is hereditary. (3) Reliable evidence concerning the fathers is rarely given. (4) Many mentally deficient children follow the normal course of mental development during the pre-school period. (5) Delayed mental development may be seen in hereditary cases of mental deficiency as well as in pseudo-feeblemindedness. (6) There is considerable evidence to indicate a biological regression from mental deficiency to the average normal mean. (7) Transmission of hereditary deficiency may occur in the second or later generations thus vitiating normal stock. (8) Feeblemindedness is not necessarily proved by the degree of correlation between the intelligence of parents and children. (9) the intelligence quotients of feebleminded children tend to decrease with advancing age. (10) The significance of an IQ should not be divorced from mental age.—*P. S. de Q. Cabot* (Simmons).

861. **Doll, E. A. Annual report: research department.** *Train. Sch. Bull.*, 1940, **37**, 97–104.—The most important work was the further development of the Vineland Social Maturity Scale. An annotated bibliography and an extensive abstract summary of all published and unpublished data on the scale were prepared. A final revision of the manuscript for the book manual on the scale was begun, and studies of twins and of individual maturation were made. The staff published 18 articles, 6 book reviews, and 14 minor reports. 552 individual cases were examined.—*E. M. Achilles* (New York City).

862. **Evans, H., & Harding, G. T. The anxiety neurosis.** *Ohio St. med. J.*, 1940, **36**, 601–605.

863. **Fetterman, J. L. Vertebral neuroses.** *Psychosom. Med.*, 1940, **2**, 265–275.—The symptoms of this illness consist of pain, limitation of motion, deformity, weakness, and general complaints indicating mental conflict, fear, and worry. The mechanisms underlying these symptoms are discussed along with the factors predetermining them as a neurotic syndrome. 5 brief case histories are given followed by suggestions for a differential diagnosis. The treatment of this form of illness is more difficult than that of other neuroses. The continuous wearing of braces may prolong the patient's difficulty. The question of operative procedures should be most carefully studies. Active therapy may include "listening" psychotherapy followed by guidance, explanation and assurance, physiotherapy, and possibly psychoanalysis.—*P. S. de Q. Cabot* (Simmons).

864. **Foerster, O. Self inflicted lesions of the kin.** *Dis. nerv. Syst.*, 1940, **1**, 381.—Abstract.

865. **Georgiade, C. Perturbările si deviaţiile generale ale cunoştinţei.** (Disturbances and general deviations of consciousness.) *Anal. Psihol.*, 1939, **6**, 115–159.—Departing from the epistemology since Kant and from the phenomenology of Husserl, the author declares that consciousness has its origins in the psycho-biological organism, in the phenomena of cellular biology, and in the neuro-cerebral psychology and pathology. He emphasizes that in the different psychoses and neuroses the angle of consciousness is deformed because the prism of the mind reflects its internal disequilibrium much better than the objective character of reality. All psychopaths refuse or cannot sustain the adaptation and harmony of consciousness with reality. Normal consciousness always presupposes a certain organization of data of the natural and social reality which the individual comprehends and utilizes to his interests. In the psychopaths consciousness is disorganized to a point that the individual is incapable of sustained personal activities; thus consciousness is not an instrument of metaphysical speculation but of organized force in order to maintain and to assure the life of the individual.—*S. M. Strong* (Howard).

866. **Geyer, H. Die angeborenen und früh erworbenen Schwachsinnzustände.** (Congenital and early developed feeblemindedness.) *Fortschr. Neurol. Psychiat.*, 1940, **12**, 263–272; 273–295.—This a survey of investigations of feeblemindedness published within the last 5 years. The first part deals with general studies of oligophrenia. Publications on uncomplicated feeblemindedness are classified under diagnosis, therapy, and prognosis. The second part is concerned with special anatomic, clinical, and genetic forms of deficiency: malformation of the brain, cerebral palsy, amaurotic idiocy, and mongoloid idiocy. Bibliography of 227 titles.—*D. S. Oberlin* (Delaware State Hospital).

867. **Harrington, M. A proposal for the establishment of a school of mental health.** *J. appl. Psychol.*, 1940, **24**, 540–552.—A plan is described for a school of mental hygiene to which the medical practitioner would be able to send his patients who require psychotherapy. The need for such a school and the form of training to be given the patients are discussed.—*E. E. Ghiselli* (California).

868. **Holbrook, C. S. The effects of war on mental health.** *New Orleans med. surg. J.*, 1940, **92**, 681–683.

869. **Horsfield, E. Mental defectives at the court of Philip IV of Spain as portrayed by the great court painter Velasquez.** *Amer. J. ment. Def.*, 1940, **45**, 152–157.—The court of Philip IV of Spain, 1621–1665, was crowded with almost every sort of person that might be included in fooldom. Evidently they were treated with a certain amount of

respect and enjoyed the freedom of the household. 9 paintings by Velasquez which contain fools, hydrocephalics, idiots, cretins, and dwarfs are discussed. 3 reproductions are presented and a list of 20 paintings of mental defectives by 7 artists is appended.—*M. W. Kuenzel* (Children's Home, Cincinnati).

870. **Ionescu-Sisesti, N., Copelman, L., & Tumin, L. Profilul mintal al parkinsonienilor post-encefalitici.** (Mental profile of cases of post-encephalitic Parkinsonism.) *Anal. Psihol.*, 1939, **6**, 180–186.—The mental profile of cases of Parkinsonism was analyzed in a previous study by the same authors (see XIII: 4158) through the psychogalvanic reflex and the Rorcharch test. Results from further tests are presented in the present paper. Tests of comprehension, attention, and suggestibility, all reveal marked impairments indicative of psychological sluggishness in addition to the muscular sluggishness. —*S. M. Strong* (Howard).

871. **Jefferson, R. A. Obsession neurosis in children.** *Dis. nerv. Syst.*, 1940, **1**, 382.—Abstract.

872. **Julian, F. B. Psychological casualties in air raids, and their first aid treatment.** London: Society for Promoting Christian Knowledge, 1940. Pp. 23. 6*d*.

873. **Kallmann, F. J., Barrera, S. E., & Metzger, H. The association of hereditary microphthalmia with mental deficiency. Concordance of bilateral anophthalmos and mental deficiency in a pair of identical twins.** *Amer. J. ment. Def.*, 1940, **45**, 25–36.—A family is described in which there were 4 normal and 4 anophthalmic children including a pair of identical twins who were equally affected by the trait. The twins were mentally retarded though their surviving sister who was also afflicted showed normal mentality. Their electroencephalograms were abnormal. Findings confirmed Waardenburg's theory that the plain form of congenital microphthalmia including anophthalmos is based on a recessive genetic factor and Robert's hypothesis that the frequent association of microphthalmia with mental deficiency is most probably attributable to an increased prenatal susceptibility of the trait-carriers to non-genetic influences during the critical stage of cerebral development.—*M. W. Kuenzel* (Children's Home, Cincinnati).

874. **Kelly, E. L. The Purdue Psychological Clinic.** *Stud. high. Educ., Purdue Univ.*, 1940, No. 37, 62–71.—A description of the activities of this recently organized clinic.—*C. M. Louttit* (Indiana).

875. **Kirschbaumer, L. Poetry in schizophrenia and other psychoses.** *J. nerv. ment. Dis.*, 1940, **91**, 141–156.—Poetry can be regarded as emotional cathexis, and as such reveals the unconscious. So far, not much use has been made of this in psychiatry. The author presents poems written by institutionalized psychotic patients together with case history material, and discusses the poetry in relation to the progression of the disease process. Special reference is made to schizoid features in the productions, and a plea is made for more general use of such material.—*R. C. Moore* (Boston Psychopathic Hospital).

876. **Koch, A. Nevrose dos paes—nevrose dos filhos.** (Neuroses of parents—neuroses of children.) *Neurobiologia, Pernambuco*, 1939, **2**, No. 4.—[Abstracted review; original not seen.] Correlation between parents and children in nervous disorders is rarely the direct result of heredity alone but arises from a background of an inherited constitutional sensitivity when, as is frequently the case, the behavior of the neurotic parents imposes more than the usual strain upon the young child.—*F. L. Goodenough* (Minnesota).

877. **Kraskin, L. H. Psychotherapy for optometrists.** *Amer. J. Optom.*, 1940, **17**, 402–413.—Pointing out the frequency with which physical symptoms represent emotional maladjustments, the author urges that optometrists recognize emotional complications as sources of ocular difficulties. Apparently he considers that the majority of cases do not require referral to psychotherapists but can be adequately helped by having their attention called to the part played by emotional disorders and by learning to maintain a better emotional balance under the optometrist's guidance. In those cases which represent major psychiatric problems and which must be referred, success of the treatment may depend upon an adequate preliminary introduction to the point of view which the psychiatrist will take. Optometrists should be prepared to give such introductory discussions.—*M. R. Stoll* (American Optical Company).

878. **Kusano, S. [A sketch of the nervous temperament.]** *Jap. J. Psychol.*, 1940, **15**, 331–341. —Obsession in psychoneurotic patients seems to be founded upon a feeling of inferiority and an egocentric character and can be cured by treating these etiological characteristics.—*R. Kuroda* (Keijo).

879. **Leuthold, H. Jahreszeit und Phasenbeginn manisch-depressiver Psychosen.** (Season and the onset of phases in manic-depressive psychoses.) *Arch. Psychiat. Nervenkr.*, 1940, **111**, 55–61.—A review of histories of male and female patients in the Munich Psychiatric Clinic from 1930–1935 shows a definite increase in the onset of depressions in October and a lesser increase in the spring.—*M. E. Morse* (Baltimore).

880. **Levine, M. The dynamic conception of psychopathic personality.** *Ohio St. med. J.*, 1940, **36**, 848–850.

881. **Lindemann, E., & Finesinger, J. E. The subjective response of psychoneurotic patients to adrenalin and mecholyl (acetyl-B-methyl-choline).** *Psychosom. Med.*, 1940, **2**, 231–248.—Intramuscular injections of adrenalin, mecholyl, and saline solution were given on 3 different test days to 40 psychoneurotic patients ranging in age from 21–47 years. Statements from the patients were recorded in response to specific questions concerning mood, particular parts of the body, and general somatic sensations. The most striking symptoms reported

after adrenalin injections were: heart pounding (70% of the cases), trembling (55%), nervousness (38%); after mecholyl injections: sense of general heat (58%), complaints about feelings of discomfort (57%), difficult breathing (45%), fullness and warmth in the head (35%), perspiration (30%); after saline injections: vague references such as weakness (18%), feelings of relaxation (15%), and sleepiness (13%). Patients under the influence of mecholyl had more to say about their subjective experiences than when adrenalin was administered. —*P. S. de Q. Cabot* (Simmons).

882. **Maclay, W. S., & Guttman, E. The war as an aetiological factor in psychiatric conditions.** *Brit. med. J.*, 1940, Part II, 381–383.—*W. J. Brogden* (Wisconsin).

883. **Maier, N. R. F., & Glaser, N. M. Studies of abnormal behavior in the rat. V. The inheritance of the "neurotic pattern."** *J. comp. Psychol.*, 1940, **30,** 413–418.—74% of 35 offspring of rats which exhibited neurotic behavior when stimulated by jingling keys also manifested such behavior. 52% of 25 products of crossings involving one normal and one neurotic rat showed neurotic behavior. None of the 18 offspring of normal rats evidenced such behavior. The inherited tendency appears to be dominant and unitary.—*N. L. Munn* (Vanderbilt).

884. **Manuel, H. T. [Ed.] Mental hygiene moves forward. Third Yearbook of the Texas Society for Mental Hygiene.** *Univ. Texas Publ.*, 1939, No. 3944. Pp. 44.

885. **Marui, K. Zur Kenntnis des paranoischen Mechanismus; eine psychoanalytische Studie an zwei Fällen akuter Paranoia.** (On the mechanism of paranoia; a psychoanalytic study of two cases of acute paranoia.) *Arb. Psychiat. Inst. Sendai*, 1940, **7,** 1–17.—The author describes 2 cases of acute paranoia showing a strong fixation of libido to the stage of narcissism. Both cases had auditory hallucinations in the sense of wish fulfillment and heard criticizing voices as an expression of narcissistic conflict.—*R. Kuroda* (Keijo).

886. **Marui, T. Ueber einen hysterischen Anfall; eine psychoanalytische Untersuchung bei einem eigentümlichen hysterischen Anfall einer 17 jährigen Hysterica.** (On an hysterical fit; a psychoanalytic investigation on a peculiar hysterical fit of a 17 year old hysterical girl.) *Arb. Psychiat. Inst. Sendai*, 1940, **7,** 40–53.—The hysterical fit of the patient consisted of a twilight or sleeping state with movements of her hand, certain manners, and speeches denoting the caressing of babies, and with occasional sucking movements of her lips. Psychoanalytic treatment showed that this was a case of so-called multiple identification and that the twilight state was on the one hand an expression of a sleep complex or rather a compensation for loss of sleep and on the other hand a flight from psychical conflict into illness. The fixation of libido on the Oedipal phase was distinctly observed.—*R. Kuroda* (Keijo).

887. **McKinley, J. C., & Hathaway, S. R. A multiphasic personality schedule (Minnesota): II. A differential study of hypochondriasis.** *J. Psychol.*, 1940, **10,** 255–268.—The authors' multiphasic personality test was administered to 50 patients diagnosed as hypochondriacs at the Psychopathic Unit of the University of Minnesota Hospital. Patients with manifestations of the major psychoses were excluded in order to obtain uncomplicated hypochondriasis. As a control 427 normal and socially and economically comparable individuals were also tested. A group of 55 items was extracted from the test which appeared to provide the best measure of hypochondriasis. The results showed that the hypochondriac group could be differentiated from the normal group on the basis of the test, that the scores of some of the normal group overlapped the hypochondrical group, and that the presence of physical disorders only slightly altered the score of normals in the direction indicating hypochondriasis. —*F. A. Mote, Jr.* (Connecticut).

888. **Miller, E. [Ed.] The neuroses in war.** New York: Macmillan, 1940. Pp. xii + 250. $2.50.—11 British psychiatrists canvas the problem of war neuroses as it appears in the military and civilian populations. "As a group, the psychological patients of the last war served as long and at least as well as the average soldier. There is official evidence to show that in a very large proportion of cases, before the breakdown, the man has done credit to himself and his unit. . . . In fact the proportion of men with neuroses who received decorations for valour showed little difference from the proportion of other soldiers who received decorations. It would appear that some measure of mental peculiarity may endow a man with *élan*, with conscientiousness, and sometimes with additional grit." The chapter headings are as follows: survey of the literature; mode of onset of the neuroses in war; clinical case studies and their relationships, including the psychosomatic disorders; the differential diagnosis of the psychoneuroses in war; psychopathological theories of neuroses in wartime; treatment of neuroses in the field, the advanced psychiatric clinic; treatment by suggestion and hypno-analysis; technique of other psychotherapeutic methods; psychiatric organization in the services; the "war of nerves," civilian reaction, morale, and prophylaxis. There are 4 appendices on civilian and military problems and an 8-page bibliography.—*W. S. Hunter* (Brown).

889. **Paskind, H. A., & Brown, M. Constitutional differences between deteriorated and non-deteriorated patients with epilepsy: IV. The handwriting.** *Arch. Neurol. Psychiat., Chicago*, 1940, 43, 507–516.—*W. J. Brogden* (Wisconsin).

890. **Petersen, W. F., & Reese, H. H. Psychotic and somatic interrelations.** *J. Amer. med. Ass.*, 1940, **115,** 1587–90.—Both the moods of the normal person and the shifting psychic picture of the psychotic patient reflect, in varying degree, the change in the weather, modified by sexual cycle,

physical and mental activity, diet, infection, and emotional situation. The effects of weather are most significant because they are relatively prolonged and inescapable. Weather will bring into relief latent hereditary dispositional and constitutional tendencies in the general psychopathic population.—*W. J. Brogden* (Wisconsin).

891. **Popescu, I. Complexele ideo-afective ale cunoştinţei.** (The ideo-affective complexes of consciousness.) *Bul. Soc. Psihol. med. Sibiu.*, 1939, **6**, 65–66.—[Abstracted review; original not seen.] Psychoanalysis considers as ideo-affective complexes the systems of tendencies of the unconscious repressed by excessive consciousness. Under the influence of the Viennese school, the entire postwar psychology is one of the unconscious and of instincts, especially sexual. Observing the distortions of consciousness in neuroses the author states: "One may also speak of real ideo-affective complexes of consciousness. To the dynamic unconscious is opposed creative consciousness towards which it is necessary to direct psycho-analytic and general psychological research."—*S. M. Strong* (Howard).

892. **Rabin, A. I. Perseveration in dementia praecox and manic depressive psychoses.** Boston: Boston University, 1939. Pp. 4.—Abstract.

893. **Reich, A. A contribution to the psychoanalysis of extreme submissiveness in women.** *Psychoanal. Quart.*, 1940, **9**, 470–480.—The extreme submissiveness of two female patients to men is explained by the neurotic character of their love life. "A healthy relationship to objects is one where the love of an object can be maintained even if the object be the agent of temporary disappointments or frustrations. This is possible by the development of an ego that is capable of mastering reality. Where there is interference with this development, a perpetuation of early infantile conflicts results. Masochistic submissiveness in women is one way of attempting to solve these conflicts."—*M. H. Erickson* (Eloise Hospital).

894. **Rennie, T. A. C. Obesity as a manifestation of personality disturbance.** *Dis. nerv. Syst.*, 1940, **1**, 238–247.

895. **Roemer, H. Die V. europäische Vereinigung für psychische Hygiene in München vom 22. bis 25. August 1938.** (The fifth European congress for Mental Hygiene, Munich, August 22–25, 1938.) *Z. psych. Hyg.*, 1939, **12**, 2–54.—A report of the proceedings with short abstracts of the papers and the discussions.—*M. E. Morse* (Baltimore).

896. **Rosca, A. Igiena mintală scolară.** (Mental hygiene in the school.) Cluj, Rumania: Institutului Psihologie Universitatü Cluj, 1939. Pp. iv + 173. Lei 100.—[Abstracted review; original not seen.] The major interest is directed towards normal cases with some attention to a few abnormal or retarded students. The methods recommended are: observation and tests. From the tests a coefficient of accomplishment can be calculated. A future volume will deal with therapeutic methods.—*S. M. Strong* (Howard).

897. **Russell, R. W., Dennis, W., & Ash, F. E. Studies in animism. III. Animism in feeble-minded subjects.** *J. genet. Psychol.*, 1940, **57**, 57–63.—When 430 feeble-minded persons (MA's: 2 yrs. 11 mos.—11 yrs. 7 mos.; CA's: 7 yrs. 2 mos.—64 yrs.) answered a standardized series of questions on the animation of various objects, there responses could be classified according to Paiget's 4 stages. Comparison of normal and feeble-minded subjects with the same MA's showed the latter slightly advanced in their animistic notions. Similar comparisons of older and younger feeble-minded subjects with the same MA's showed the older advanced over the younger subjects.—*D. K. Spelt* (Mississippi).

898. **Schröder, P. Kinderpsychiatrie.** (Child psychiatry.) *Z. psych. Hyg.*, 1939, **12**, 54–57.—These are reflections prompted by the First International Congress of Child Psychiatry, held at Paris in the summer of 1938. The applicability of the term child psychiatry for this specialty was questioned, but it was retained because of its general use and lack of a better one. Purely psychiatric training and experience are insufficient, however, although the psychiatrist is the one best fitted to carry on the work. Characterology is in reality the basis of child psychiatry. Differential characterology (in contradistinction to making the psychoses the principle of classification) has been applied chiefly to children, but is equally applicable to adults, particularly psychopaths. The immediate task of child psychiatry is to develop differential characterology in the direction of prognosis as to educability, slow maturing, or delinquency.—*M. E. Morse* (Baltimore).

899. **Schumacher, J. Die seelischen Volkskrankheiten im deutschen Mittelalter und ihre Darstellungen in der bildenden Kunst.** (Mental epidemics in the German Middle Ages and their representation in the graphic arts). Berlin: Junker & Dunnhaupt, 1940. Pp. 77.—[Abstracted review; original not seen.] Mass psychoses were represented in 3 groups: dancing mania, phenomena of being possessed by the devil, and flagellantism. The first represents the clinical picture of epilepsy and chorea, and some primitive cult forms arising from the unconscious. "Being possessed by the devil" suggests, basically, forms of hysteria, characterized by increased suggestibility and auto-suggestibility. The flagellants were represented as processions of penitents, inflicting punishment on themselves. Drawings show the treatments of that time to be exorcism and procedures based on suggestion, religious faith, or positive transference of special potency.—*J. E. Bader* (Brandon State School).

900. **Schwing, G. Ein Weg zur Seele des Geisteskranken.** (A way to the mind of the mentally ill.) Zurich: Rascher Verlag, 1940.—[Abstracted review; original not seen.] This is a report by a nurse, who, as a lay psychoanalyst made use of the Freudian procedures in dealing with schizophrenic women, most of whom were at the same time being subjected to insulin treatment. The author took the position

that a major factor in the mental disorganization of these patients was a lack of normal maternal affection during their childhood. Her treatment consisted in establishing a mother-child relationship between herself and her patients, through which means there was brought about "an almost complete transformation of the I-libido into the object-libido."—*F. L. Goodenough* (Minnesota).

901. **Seidenfeld, M. A. The psychological reorientation of the tuberculous.** *J. Psychol.*, 1940, **10,** 397–405.—The author emphasizes the need not only for reorientation of the patient's mental outlook, but also often for definite alteration of his environment if he is to succeed in adjusting after his release from the hospital. The function of the psychologist in tuberculosis hospitals and sanatoria is held to include counseling and supplying vocational guidance, as well as education of the public in the need for rehabilitation services.—*F. A. Mote, Jr.* (Connecticut).

902. **Slight, D. Modern trends in the hospital care of the mentally ill.** *Ment. Hyg. Rev.*, 1940, **1,** 81–85.—The trend is toward treatment rather than detention.—*C. M. Louttit* (Indiana).

903. **Smalldon, J. L. A survey of mental illness associated with pregnancy and childbirth.** *Amer. J. Psychiat.*, 1940, **97,** 80–101.—Only 3.6% of the cases studied had toxic-exhaustive deliria; the majority had manic-depressive psychoses, and a large number dementia praecox. "The variance of many of the dynamic factors found in this study from those previously reported by others perhaps further emphasizes the difficulty of generalizing regarding the mechanisms of these reactions."—*R. Goldman* (Boston Psychopathic Hospital).

904. **Sprague, G. S. Denial in mental illness.** *Dis. nerv. Syst.*, 1940, **1,** 363–368.—The ego, under various sorts of pressures, has the difficult task of making a satisfactory adjustment for the id and superego, and denial is a powerful mechanism often employed for this purpose. Denial to avoid unpleasantness may occur as a negation of the past, present, or future; it may occur in a positive or a tacitly implied form. Still other mechanisms may be superimposed on the denial, such as projection. From different types of denial it is possible to infer different aspects of psychoses, and from variations in denial expression it is possible to evaluate the relative strengths of the id, ego, and superego. Any gain resulting to the individual through such a mechanism is at the expense of reality appreciation. —*C. E. Henry* (Brown).

905. **Sprague, G. S. Modern concepts of mental illnesses.** *N. Y. St. J. Med.*, 1940, **40,** 865–874.

906. **Springsteen, T. A Wyoming State Training School survey on emotional stability, intelligence, and academic achievement.** *J. except. Child.*, 1940, **7,** No. 2. Pp. 54–64.—A battery of intelligence tests, achievement tests, and the Mathews Emotional Stability Questionnaire was administered to 27 cases of the higher groups of mentally handicapped. No marked sex difference in emotional stability was found, but it is felt that therapy will be aided by knowledge of the Mathews results. A marked correlation was found between intelligence and academic achievement. The performance mental age was considerably above Binet and achievement age, the average child having acquired about 60% of normal academic achievement.—*L. A. Averill* (Worcester Teachers College).

907. **Stone, E. H. The psychoneurotic: a state hospital problem.** *Med. Wom. J.*, 1940, **47,** 241–243.

908. **Tobino, M. La sindrome di Cotard.** (Cotard's syndrome.) *Riv. sper. Freniat.*, 1940, **64,** 65–81.—Cotard's syndrome is a systematized delirium of negation occurring in anxiety melancholia. Tobino develops a hypothesis of its evolution on the basis of intellectual pain. The patient realizes with painful surprise his incapacity to form concepts; consciousness, empty of voluntary ideas, is invaded by automatic processes. He feels that his former personality has disappeared, although he preserves a memory of it and still feels alive; hence the ideas of a second personality, immortality, or damnation. The organic sensations, affective suffering, and guilt feeling disappear, and intellectual pain is substituted for the moral pain of simple melancholia. The condition is a reaction of desperation to the feeling that the world of ideas no longer exists. It is not an evasion, but a painful argument between the new and old personalities. All melancholiacs have a diminished capacity for synthesis, but only an intellectual can develop this syndrome. If an intellectual develops anxiety melancholia, he is on the road to a delirium of negation.—*M. E. Morse* (Baltimore).

909. **Watson, G. Areas of agreement in psychotherapy.** *Amer. J. Orthopsychiat.*, 1949, **10,** 698–710. —The following 9 therapists present their views on those areas of psychotherapy about which there seems to be general agreement: Alexandra Adler, Frederick H. Allen, Eleanor Bertine, Joseph Chassell, Helen Durkin, Carl R. Rogers, Saul Rosenzweig, Robert Waelder, and Goodwin Watson. There is agreement on: the objective of increasing the client's capacity to deal with reality; the importance of the therapist-client relationship; the need of keeping responsibility for choice on the client; the importance of enlarging the client's understanding of himself; the undesirability of treating isolated symptoms; the non-therapeutic effect of mere catharsis of feelings; the poor results of advice and extortion; and the importance of flexible techniques that vary with the problems and potentialities of the individual client and with the personality of the therapist.—*R. E. Perl* (Jewish Board of Guardians).

910. **Watson, J. Mental hygiene aspects of impaired hearing.** *Hlth Bull. N. C. St. Bd Hlth*, 1940, **55,** 8–10.

911. **Weiss, E. Cardiovascular lesions of probable psychosomatic origin in arterial hypertension.** *Psychosom. Med.*, 1940, **2,** 249–264.—5 clinical reports illustrative of hypertensive encephalopathy, spontaneous subarachnoid hemorrhage, and repeated attacks of pulmonary edema and progressive

heart failure are presented for two reasons, (1) to emphasize the necessity for a careful psychological study of patients with organic cardiovascular disease and (2) to suggest the possibility of the precedence of related psychic events where cardiovascular lesions occur in arterial hypertension.—*P. S. de Q. Cabot* (Simmons).

912. **White, P. D., & Glendy, R. E. The growing importance of cardiac neurosis.** *Ann. intern. Med.*, 1937, **10**, 1624–1635.—[Abstracted review; original not seen.] Cardiac neurosis consisting of fear or apprehension about the heart is increasing in frequency and should be recognized and treated in its early stages. Exciting conditions may be: occurrence of heart disease in the family; an irrelevant remark made by the physician regarding the heart condition, leading to an overemphasis of some symptoms; and subjective sensations such as extra systoles or tachycardia. The neurosis may occur in conjunction with an organic heart disease. 3 case histories are presented, all emphasizing faulty diagnosis and treatment.—*P. S. de Q. Cabot* (Simmons).

913. **Willhite, F. V. A program for the control of the mentally deficient. In operation; the difficulties encountered; benefits obtained.** *Amer. J. ment. Def.*, 1940, **45**, 145–151.—South Dakota's program demonstrates that the fundamental requirements for controlling the mentally deficient can be met. Its Control Law has been in operation 8 years during which period 30% of the identified mentally deficient have been adjudicated and placed under supervision. The following minimum requirements are said to be essential to any law purporting to control mental defectives: a survey or continuous census, adjundication, supervision, and the prevention of marriage. Adjudication is the key to control, while supervision represents the crux of the whole program. Little difficulty has been encountered regarding prevention of marriage of defectives. The records show that but 2% of those under control have evaded control sufficiently to procreate, although 40% of those under control are of marriageable age.—*M. W. Kuenzel* (Children's Home, Cincinnati).

914. **Woods, A. H. The common basis of psychotherapy and general therapy.** *J. Iowa St. med. Soc.*, 1940, **30**, 384–389.

915. **Worchel, P. Objective explanation of mental illness.** *Occup. Ther.*, 1940, **19**, 145–154.

916. **Yamamura, M. Ueber Menschenscheu. II. Mitteilung.** (On shyness. II.) *Arb. Psychiat. Inst. Sendai*, 1940, **7**, 54–80.—An 18 year old female patient who complained about blushing and shyness and tried 3 times to commit suicide was analyzed; it turned out that she took a masochistic attitude toward her disturbance and a sadistic attitude toward her libido. Coitus as well as penis wish played some role in her attempt of suicide. The blush phenomenon may be taken for an expression of a compulsion for confession.—*R. Kuroda* (Keijo).

[See also abstracts 678, 826, 829, 978, 986, 1006, 1102, 1106, 1123, 1126, 1131.]

PERSONALITY AND CHARACTER

917. **Abernethy, E. M. Further data on personality and family position.** *J. Psychol.*, 1940, **10**, 303–307.—Administration of the Bernreuter Personality Inventory and the Bell Adjustment Inventory to 300 women in a North Carolina college gave data which agree in general with data on Midwest college men and New England college women. The eldest child tends to be agressive, less neurotic, and better adjusted than those of later birth, with the greatest differences appearing between members of large families. The middle child has a less favorable position than the eldest; his relation to the youngest is not consistent. Data for the only child are not consistent, but he tends to be more self-sufficient, more dominant, and less neurotic than the average.—*F. A. Mote, Jr.* (Connecticut).

918. **Allport, G. W. Motivation in personality: reply to Mr. Bertocci.** *Psychol. Rev.*, 1940, **47**, 533–554.—Answers are given to 7 issues raised by Bertocci (see XV: 782), viz.: (1) the argument for hormic purposivism, (2) the sufficiency of instinct, (3) the necessity for employing universal dimensions in science, (4) the plausability of the principle of ontogenetic emergence, (5) the nature of functional autonomy, (6) the problem of an adequate explanation of continuity in personality, and (7) the place of sentiments in the structure of personality. The major difference in viewpoint hinges on the question of whether traits, attitudes, and sentiments, as adult units of motivational structure, can be regarded as dynamic, unique, personal, and ultimate, or whether they are merely proximate factors which must derive their dynamism from a few fundamental instincts or propensities.—*A. G. Bills* (Cincinnati).

919. **Benari, L. Puncte de vedere in psihologia contemporană a femeii.** (Points of view in the contemporary psychology of women.) *Anal. Psihol.*, 1939, **6**, 163–179.—Passion is not paramount in woman's make-up rendering her incapable of objectivity; the various philosophical studies do not contain psychologically valid principles. Contemporary research follows the lines of biology, medico-pathology, and experimental psychology. Biological studies on the influence of the physical structure of woman on her psychological life are analyzed. Future psychological studies of women will be concerned mainly with the problem of sex, heredity, and social environment.—*S. M. Strong* (Howard).

920. **Capurso, A. A. Written responses in a musical situation as a function of the stability of emotional behavior.** *J. gen. Psychol.*, 1940, **23**, 289–304.—95 grade school children, 7–14 years old, listened to recordings of musical selections. One month later the procedure was repeated. The children were asked to write out during the second playing of each selection any word or group of words expressing any idea that occurred to them in each of the 2 sessions. The subjects were divided into 3 groups, differing in emotional stability, as determined by teachers' ratings and other information, but equal in age, intelligence, and musical aptitude,

as measured by the Seashore pitch and intensity tests. Unique words and repetition of the same word were found more frequently in the least stable group, which also scored higher on the Seashore tests when given as a group test than when given individually.—*C. N. Cofer* (U. S. Employment Service).

921. **Cattell, R. B., & Molteno, E. V. Contributions concerning mental inheritance: II. Temperament.** *J. genet. Psychol.*, 1940, **57**, 31–47.—To 53 pairs of dizygotic twins and 31 pairs of monozygotic twins, all males 12–13 years old, 2 sets of tests were administered: (1) tests of fluency of association (*F*) or surgency (the unchanging core in extraversion) and (2) tests of perseveration (*P*). On the *F* tests both kinds of twins resembled each other much more than randomly paired individuals; differences between the kinds of twins were insignificant when tested by critical ratio, significant on the basis of chi-square tests. Statistical computations led to the conclusion that family-environmental differences "are about 8 times as important as hereditary segregation of genes in accounting for individual differences in fluency." *P* test results gave no evidence of hereditary influence, although for monozygotic twins the pairs differing most in *P*-scores tend to differ most in *F*-scores ($r = .165 \pm .117$).—*D. K. Spelt* (Mississippi).

922. **Darley, J. G., & McNamara, W. J. Factor analysis in the establishment of new personality tests.** *J. educ. Psychol.*, 1940, **31**, 321–334.—5 new experimental scales for measuring behavior constellations have been isolated by factor analysis of test and retest performance on 13 attitude and adjustment scales. The 5 tests are being applied to new populations.—*R. M. Bellows* (Maryland).

923. **Doi, M. Jinkakugaku josetsu, Seishinigaku (Psychiatrie) no kishi oyobi shûketsu toshiteno.** (Prolegomena to personology, as alpha and omega of psychiatry.) *Arb. Psychiat. Inst. Sendai*, 1940, **7**, 81–190.—Several comprehensive topics such as human nature, personality and self, character and temperament, heredity and environment, psychology as personality experience, history and value, nature and civilization, racial characteristics, nationality, vocation, social order, neighbourhood, religion, love, and family are dealt with.—*R. Kuroda* (Keijo).

924. **Hampton, P. Is there a "grocer" personality?** *Occupations*, 1940, **19**, 184–187.—An analysis of the scores obtained by 70 grocers on the Bernreuter Personality Inventory indicates that the grocer has an average personality in no way distinguished from the large majority of people.—*G. S. Speer* (Central YMCA College).

925. **Hart, H. Chart for happiness.** New York: Macmillan, 1940. Pp. xi + 198. $2.00.—The author presents euphorimeter tests for measuring long-run and momentary levels of adjustment. For the latter an adjective battery is used, and for the former scores are projected on a scale with 0 between happiness and unhappiness and 100 at average happiness as previously determined. There is also a diagnostic euphorimeter, consisting of 4 parts, by which happiness in recreation, work, love-life, and home, as well as the degree of health and vigor, and mental and social attitudes can be determined. By examining this spectrum causes of unhappiness can be diagnosed and recommendations for improvement made. The various factors relative to happiness are discussed and ways suggested for the use of the scale by the reader or by the professional advisor.—*M. Lee* (Chicago, Ill.).

926. **Hathaway, S. R., & McKinley, J. C. A multiphasic personality schedule (Minnesota): I. Construction of the schedule.** *J. Psychol.*, 1940, **10**, 249–254.—The authors have devised a multiphasic personality test which they are standardizing on 1500 normal individuals and on 220 psychopathic patients in the University of Minnesota Hospital.—*F. A. Mote, Jr.* (Connecticut).

927. **Marañon, G. "Amiel" o della timidezza.** ("Amiel" or timidity.) (Trans. from the Spanish.) Turin: Einaudi, 1938. Pp. 182.—[Abstracted review; original not seen.] This monograph forms one of Marañon's biological-historical series on sex. Male sexuality passes through the following phases: non-specific; toward the opposite sex in general; polygamous; and monogamous. The timid man of superior type, of which Amiel is an illustration, is monogamous. His feminine ideal is the unconscious memory of his mother which he never succeeds in recovering in real life, although he is attractive to many women because of his high character.—*M. E. Morse* (Baltimore).

928. **Pavlescu, V. Psihologia personalităţii. Bazele personalităţii.** (Psychology of personality. Basis of personality.) Jassy, Rumania: Al. Ţerek, 1939. Pp. 140.—[Abstracted review; original not seen.] Gordon Allport's definition of personality as dynamic organization within the individual is adopted in this volume as a point of departure. A consideration of the dynamic aspect of heredity is followed by a synthesis of researches on morphological types by Rostan, Beneke, De Giovanni, Sigaud, Viola, Pende, Kretschmer, and Mathos. The classification of typologies on the basis of psychopathology deals with the typologies of Kretschmer, Bleuler, Gross, Jung, Fouillée, Binet, Claparède, Müller-Freienfels, and Paulhan. Spearman's attempt to base typology on correlation is also discussed. In dealing with the development of personality Janet, Roback, Allport, Binet, and Claparède are named. The second part of the book deals with the physical and biochemical factors of personality.—*S. M. Strong* (Howard).

929. **Pitkin, W. B. Escape from fear.** New York: Doubleday, 1940. Pp. 272. $2.00.—The author points the way to a cheerful, balanced, purposeful life in the midst of the fears and worries that beset the ordinary individual in this time of world chaos.—(Courtesy *Publishers' Weekly*).

930. **Rexroad, C. N. Psychology and personality development.** Boston: Christophor, 1940. Pp. 501. $3.00.—This is a general introductory textbook.

"Material is selected and presented in a manner suited to the needs of the general rather than the pre-professional student. . . . On this basis more attention is given to emotions, habit formation, efficiency in learning and study, hereditary and environmental influences, and development of personality traits; and less attention is paid to sensory, physiological, comparative, and theoretical topics than that customary in textbooks and demanded in research and systematic treatises."—*C. H. Graham* (Brown).

931. **Roslow, S. Nation-wide and local validation of the P.Q. or Personality Quotient Test.** *J. appl. Psychol.*, 1940, **24**, 529–539.—The results of studies of the validity of the Link Personality Test for youths are summarized. The test scores have been found to adequately differentiate students either of high or low scholarship who are leaders from those who are not leaders, and to correlate with teachers' and classmates' ratings. Of the 5 subtests, the scale of economic self-reliance appears to be the least valid.—*E. E. Ghiselli* (California).

932. **Ushijima, Y. Seikaku no kôsei katei ni tsuite.** (On the process of character formation.) *Rikkyo Daigaku Tetsugakuka Nempo*, 1940, **3**, 27–90.—The article consists of a study by means of an introversion-extraversion test and a study through autobiographical notes. The author maintains that among 7 types forming characters the intro-intro-introversion type and the extra-intro-introversion type are the most frequent and that these two types and a variable type should be regarded as fundamental types, the rest being forms resulting from the effects of environment.—*R. Kuroda* (Keijo).

[**See also abstracts 660, 672, 782, 829, 887, 931, 971, 994, 1037.**]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

933. **Alexander, F. On human motivations.** *Ment. Hyg. Rev.*, 1940, **1**, 72–80.—There is a parallel between motivations of individual behavior and the behavior of historical events. Early historiographers accepted the superficial motives; currently cynics are distorting psychoanalytic hypotheses in explaining history in terms of one-sided unconscious motivations. The clinician recognizes the significance of relations between the superficial and unconscious motives, and similar recognition must prevail in historical interpretation.—*C. M. Louttit* (Indiana).

934. **Angus, H. F. [Ed.] Canada and her great neighbor. Sociological surveys of opinions and attitudes in Canada concerning the United States.** Toronto, New Haven: Ryerson Press, Yale Univ. Press, 1938. Pp. xxxvi + 451. $3.75.—This study presents a comprehensive description of Canadian opinions and attitudes toward the United States, as these are manifested in the press, parliamentary debates, official publications and pronouncements of business and patriotic organizations, books and reviews, and responses to questionnaires administered to school children, teachers, and selected samples of the general population. Common Canadian stereotypes and judgments of the American people are described, and Canadian resistance to Americanization is discussed. Data are reported separately for each of the provinces; in addition, attitudes of Conservative and Liberal adherents, rural and urban dwellers, and those of different racial origins are differentiated. In a section devoted to an analysis of factors important in the formation of opinion the role of newspapers and periodicals (both Canadian and American), the radio, motion pictures, the schools, and economic and patriotic organizations is evaluated.—*D. Rugg* (Princeton).

935. **Arenas y Loayza, C. El racismo.** (Racism.) *Rev. Univ. cat. Perú*, 1939, Sept.-Oct.

936. **Bartlett, F. C. Political propaganda.** Cambridge, Eng., New York: Univ. Press, Macmillan, 1940. Pp. x + 158. $1.25.—In this volume, the preface of which is dated April 9, 1940, the author contrasts totalitarian and democratic propaganda under the following headings: aims of political propaganda, growth of political propaganda in the modern world, general principles and special tricks and devices, the effect of political propaganda, and finally propaganda for democracy. One should distinguish between a propaganda which aims to supplement ignorance and illiteracy, pending the overcoming of these handicaps by intelligent behavior, and a propaganda based on the intent to continue these handicaps indefinitely through the control and suppression of the normal channels of public opinion. One must distinguish also between short and long range propaganda. In the former case emotional appeals have more importance than in the latter where consistency in all efforts at opinion forming is essential. Totalitarian propaganda is psychologically unsound and should not be slavishly copied. "While the use of violence as a sanction . . . may in some instances produce apparently wide conformity, actually such conformity is always less than appears . . . and there is a real danger of lowered public morale." "The basis of all effective propaganda in a democracy is a reliable news service. When the main aim is to recognize and develop the common intelligence, and not merely to suppress and outrage it, news alone can give to propaganda its necessarily concrete character. . . ." —*W. S. Hunter* (Brown).

937. **Brav, S. R. Jewish family solidarity, myth or fact.** Vicksburg: Nogales Press, 1940. Pp. v + 130. $2.50.—This is a study of attachments and group loyalty among family relatives, not including immediate family members, in Vicksburg, Miss. Questionnaire replies from 130 members of Jewish married couples and 149 comparable non-Jewish respondents who are church adherents constitute the source of data. Jews exceed non-Jews in the frequency of their contacts with relatives and in the joint pursuit of social, religious, and economic

activities. There is less tendency to employ the kiss among relatives or to lend money to relatives, while there is a greater moral sharing of the burdens of illness and grief. Jews more often quote deceased relatives and take greater pride in the achievements of family members. The findings attest to greater solidarity in Jewish than non-Jewish family groups. —*H. A. Gibbard* (Brown).

938. **Caplow, T. Transiency as a cultural pattern.** *Amer. sociol. Rev.*, 1940, **5**, 731–739.—A description of the activities and mores of transients in the United States today, with attention to recent changes.—*I. L. Child* (Harvard).

939. **Crum, M. Gullah; negro life in the Carolina sea islands.** Durham, N. C.: Duke University Press, 1940. Pp. 366. $3.50.—An account of the negroes who live among the decadent plantations of the Carolina coast and who represent the purest African stock in America today.—(Courtesy *Publishers' Weekly*).

940. **Cunningham, B. V. Family behavior.** (2nd ed.) Philadelphia: Saunders, 1940. Pp. 527. $2.75. —In this revision of the original 1936 edition (see X: 4139) the author has rewritten certain sections dealing with problems particularly acute in view of current social trends. Chapters deal with methods of studying the family; the social setting, including racial problems, variations in socio-economic status, common community forces; the use of leisure; adjustment to community life; personality development and mental hygiene; careers for parents; the relationship between children and parents; and education and heredity. The chapter on the historical background of the family is new. Further new topics are: the changing birth rate and changes in the family population, the estimated cost of rearing a child, the postponement of learning possibilities and the related delay in marriage, standards of living, and causes and frequency of divorce. The mental hygiene aspects of family behavior are stressed. The book is intended for students of college age.—*P. S. de Q. Cabot* (Simmons).

941. **Dunham, H. W. Topical summaries of current literature: social attitudes.** *Amer. J. Sociol.*, 1940, **46**, 344–375.—A summary of the literature on social attitudes during the period, January, 1933–July, 1940, inclusive. The literature is grouped into: (1) theoretical problems of attitudes; (2) physiology of the attitude; (3) construction of attitude scales; (4) measurement of attitudes; (5) studies of attitude changes; and (6) attitudes as revealed through case analysis. In the summaries references are made by number to a bibliography of 269 items which is appended.—*D. L. Glick* (Brown).

942. **Emme, E. E. Modification and origin of certain beliefs in superstitution among 96 college students.** *J. Psychol.*, 1940, **10**, 279–291.—96 college students in general psychology classes, who had been measured by the 1937 and 1938 American Council on Education intelligence test, the Bell adjustment inventory, and the Thurstone personality schedule, were given specific instruction on superstitions. A test of superstitions, composed of 47 items selected from 89 reported by students, was given before the instruction, 3 weeks afterwards, and at the end of the semester. The instruction reduced superstitious belief from a 2.67 mean average score to .67; 24 subjects had a zero score at the beginning and 15 a score of 1. Parents were found to be the strongest factor in influencing belief or disbelief in superstition. The correlation between emotion and belief in superstition was not significant. There was a significant negative correlation between intelligence and belief in superstition.—*F. A. Mote, Jr.* (Connecticut).

943. **Faris, R. E. L. Sociological causes of genius.** *Amer. sociol. Rev.*, 1940, **5**, 689–699.—Examination of life-history data on geniuses and others reveals that certain factors are common in the lives of geniuses and account, at least in part, for the development of the superior mental organization. These factors include an absorbing, obsessive interest, long study and effort, rapport with the sources of accumulated knowledge, the determination to eliminate imperfections, the need for successively greater triumphs, the setting of high standards by associates and self, confidence in the availability and value of knowledge, confidence in self, and separation from noncontributing social contacts. —*I. L. Child* (Harvard).

944. **Fay, P. J., & Middleton, W. C. The ability to judge the rested or tired condition of a speaker from his voice as transmitted over a public address system.** *J. appl. Psychol.*, 1940, **24**, 645–650.—Listeners are unable to distinguish the voice of a tired speaker from that of one who is not tired. Their opinions as to the tiredness of speakers appears to be based upon voice stereotypes.—*E. E. Ghiselli* (California).

945. **Ferguson, L. W. Comparison of scale values from the method of equal appearing intervals and paired comparisons method.** *J. gen. Psychol.*, 1940, **23**, 431–435.—100 subjects, divided into 3 groups on the basis of attitudes toward war, rated "which statement in each pair of a list of paired comparisons of the statements from Form *B* of Peterson's '*War*' scale indicated the more favorable attitude toward war." Procedures suggested by Thurstone and by Guilford were used to compute scale values for the statements from the ratings. The values obtained from these 2 methods were nearly identical, and a linear relationship was found between these scale values and published values obtained with the method of equal appearing intervals. Rank order correlations between the values given by the two psychophysical methods were all .96 or over. The curvilinear relationship found by Hevner (see V: 2637) thus does not always hold, and a linear one may occur. "So far as the construction of attitude scales is concerned, the method of equal appearing intervals need not be discarded."—*C. N. Cofer* (U. S. Employment Service).

946. **Frazier, E. F. The negro family and negro youth.** *J. Negro Educ.*, 1940, **9**, 290–299.—The

efficacy of the negro family as a socializing agency is a complex problem. In addition to the differences in the economic and social status of the negro in various areas, there are even greater differences in the larger social organizations which affect the development and status of the negro family.—*W. E. Walton* (Nebraska).

947. **Gasparrini, N. Le varianti psichiche razziali; studio di psicologia razziale sul tipo italico-ariano-meditarraneo.** (Racial psychological differences; a study of racial psychology on the Italic-Aryan-Mediterranean type.) *Endocr. Pat. cost.*, 1939, **14,** 455–460.—See XIV: 6078.

948. **Georgiade, C. Originile magice ale minciunii si geneza gandirii.** (Magic as the origin of lying and the genesis of thought.) *Stud. Cercet. Acad. româna*, 1938, **34.** Pp. 294.—[Abstracted review; original not seen.] The author develops the theme that the lie, while of biological origin, has taken on the characteristics of magic when it passed through the mind of prehistoric man. Prehistoric man evolved from the stage of visual and spatial images to that of mimical and vocal expression; later he developed the capacity of abstraction from immediate reality and, through the medium of language, to interiorize thought (imperceptible vocalization), thus guarding self-interest actions from his fellow-man. After acquiring language, the magical power of images was substituted by verbal magic. For primitive man the reproducing of objects through laryngo-oral images was equivalent to manipulation of real objects. Verbal magic resulted from this illusion. This in turn led to lying in order to escape from difficulties.—*S. M. Strong* (Howard).

949. **Grimes, J. W., & Bordin, E. A note on the interchangeability of art originals and colored photographic reproductions.** *J. educ. Psychol.*, 1940, **31,** 376–382.—Originals and reproductions were found to be not behaviorally equivalent.—*R. M. Bellows* (Maryland).

950. **Groves, E. R., & Moore, H. E. An introduction to sociology.** New York: Longmans, Green, 1940. Pp. viii + 737. $3.25.—Part 1 is a brief statement of the field of sociology. Part 2, The Person and His World, discusses geographical and demographic factors, culture, and personality. The pleasure motive, the capacity for random movements to be supplanted by purposeful activity, for reflexes and instincts to be complexly conditioned, and for habits to form as a product of group experience, are biological foundations of social behavior. Personality development, particularly during the childhood and adolescent periods, is examined with special reference to socialization, conflict, and integration. Psychiatric interpretations of personality revolve around the basic psychoanalytic concepts. There is an ongoing interplay of personalities. Personality responses may reveal social distance, neuroses, or mental diseases. Part 3, Social Processes, deals with social contact and communication underlying social interaction. The processes of cooperation, conflict, accommodation, and assimilation are analyzed. Part 4, Means of Social Integration, discusses unorganized modes of social control, play, art, science, and a number of the more basic social institutions.—*H. A. Gibbard* (Brown).

951. **Gunthorp, J. M. Aesthetic maturity.** *J. genet. Psychol.*, 1940, **57,** 207–210.—14 pairs of pictures were twice judged by a group of adults interested in art, with 50 days separating the judgments. Then boys and girls 7–18 yrs. old made similar sets of judgments. Each member of this group was given a score based on the number of preferences for pictures also preferred by adults. The coefficients of correlation between average score and age were: .53 for the group as a whole, .43 for boys, .41 for girls. High scholastic attainment, training in art, and high cultural level (as rated by teachers) were associated with greater agreement with adult choices.—*D. K. Spelt* (Mississippi).

952. **Harms, E. The rural consciousness.** *Social Forces*, 1940, **19,** 29–40.—The rural consciousness is considered as a reality similar to Jung's collective unconsciousness, being composed of a definite group of attitudes and behavior patterns which do not change from individual to individual. It grows from a detailed experience of the natural environmental world and is based on an intuitive conception of reality. It guides the farmer where science fails him. "The problem which agricultural planning faces is either to accommodate its ideas and programs to the rural mind's mental bias or to try to educate it towards modern scientific consciousness."—*F. W. Finger* (Brown).

953. **Hartson, L. D. Marriage record of alumnae for the first century of a coeducational college.** *Eugen. News*, 1940, **25,** 41–44.—The marriage records of Oberlin College alumnae, graduated from 1837 to 1936, were studied, and compared with other similar data. The findings are: (1) The marriage rate declined during the first 60 years from 97.5% to 57.7% and increased to 65% between 1907 and 1926. (2) Marriage occurs today 1–2 years earlier than 40 years ago. (3) Until 40 years ago marriage provided certain life hazards; today the death rate among the married is lower than among the unmarried. (4) Marriage figures of coeducational colleges no longer differ from those of women's colleges. (5) The percentage of Oberlin alumnae marrying Oberlin men has dropped from 65 in the first decade to 46 for the next 40 years and to between 33 and 25 during the last 50 years.—*M. V. Louden* (Pittsburgh).

954. **Hockett, J. A., & Fick, G. N. A study of the radio interests and listening habits of children.** *Yearb. Calif. elem. Sch. Prin. Ass.*, 1940, **12,** 128–135.—The results of this survey of the radio interests and listening habits of 379 VIIth grade pupils of both sexes in Berkeley were: (1) the most popular listening time was between 7 and 9 o'clock in the evening; (2) a marked lack of interest was shown in educational programs; (3) girls showed more variety

of taste than boys; and (4) more time was spent listening to the radio than on leisure reading or attendance at the movies.—*P. S. de Q. Cabot* (Simmons).

955. **Holt, J. B. Holiness religion: cultural shock and social reorganization.** *Amer. sociol. Rev.*, 1940, **5**, 740–747.—The rapid growth of holiness sects among Southern whites is interpreted as an effort to recapture a sense of security which has been lost in the course of a too swift migration to the cities.—*I. L. Child* (Harvard).

956. **Howard, A. H., & Eberhart, J. C. A scale for measuring attitude toward the Dies Committee.** *J. Psychol.*, 1940, **10**, 381–385.—The authors constructed, by Thurstone's technique, 2 forms of a scale for measuring attitude toward the Dies Committee. Reliability data based on the administration of the scale to 123 students in general psychology classes are given, together with incidental observations bearing on the validity of the scale.—*F. A. Mote, Jr.* (Connecticut).

957. **Huxley, A. L. Words and their meanings.** Los Angeles: Ward Ritchie, 1940. Pp. 28. $1.50.

958. **Imai, Y.** [**On the *engi.***] *Jap. J. Psychol.*, 1940, **15**, 305–330.—Japanese *engi*, equivalent to English omen or luck, is described under the headings of forms of popular belief, meaning of *engi*, its place in social life, its classification, and its psychology.—*R. Kuroda* (Keijo).

959. **Jaffe, A. J. Differential fertility in the white population in early America.** *Eugen. News*, 1940, **25**, 45–49.—United States census data from 1800 through 1840 were analyzed to observe fertility differentials between urban and rural areas and among socio-economic classes. In 1800 birth rates made concentric semicircles with the low rate center along the northern section of the Atlantic coast. For the entire United States the gross reproduction rate of cities under 10,000 was 70%, cities of 10,000–25,000 57%, and cities of 25,000–50,000 62% of the rural rate. These differences hold for each state and through the subsequent years. Fertility for various wards of large cities as well as rural sections and the South decreased as property per capita increased; in Providence the proportion for propertied to poor married women was 79 : 100. The main "implications lie in the fact that these differentials existed prior to the introduction of modern contraceptive practices" and were as large at the beginning of the nineteenth century as they are today.—*M. V. Louden* (Pittsburgh).

960. **Knower, F. H. A study of rank-order methods of evaluating performances in speech contests.** *J. appl. Psychol.*, 1940, **24**, 633–644.—A study of the rankings of contestants in 579 speech contests indicated that the reliability of ranking is influenced by the number of judges, the number of contestants, the type of speaking, and the order in which the contestants speak.—*E. E. Ghiselli* (California).

961. **Krogman, W. M. Is there a physical basis for race superiority?** *Sci. Mon., N. Y.*, 1940, **51**, 428–434.—There are observable and measurable quantitative racial differences both as to physical and cultural developments; but there are no measurable physical or social qualities which are in any given group superior or inferior.—*O. P. Lester* (Buffalo).

962. **Mann, C. W. Mental measurements in primitive communities.** *Psychol. Bull.*, 1940, **37**, 366–395.—The author reviews some of the theoretical prejudices and sources of error in studies of race differences, and then surveys the literature on psychological characteristics of native inhabitants of Alaska, the Hawaiian Islands, the Fiji Islands, and Australia. 98 references.—*A. W. Melton* (Missouri).

963. **Mauldin, W. P. Selective migration from small towns.** *Amer. sociol. Rev.*, 1940, **5**, 748–758.—Adult migration from 3 small Southern towns was studied in relation to sex and to academic achievement in high school. Males of superior achievement migrate in larger proportions than any other group. In both sexes, those of superior achievement are the most frequent migrants, but there is little difference between those of average and those of below average achievement. Migration to rural, big city, and all urban areas is treated differentially.—*I. L. Child* (Harvard).

964. **Mowrer, O. H. Animal studies in the genesis of personality.** *Trans. N. Y. Acad. Sci.*, 1940, **3**, 8–11.—This lecture is prefaced by an enumeration of certain advantages realized in the use of animals for the investigation of problems relevant to human behavior. There are then described several experiments in which the social behavior of rats has been studied. In one experiment the feeding behavior is shown to pass through the successive stages of non-competition, competition, and food sharing. In a second experiment the development of workers and social parasites is illustrated. In a third situation the simple determination of the dominance hierarchy of a group is made possible. Another investigation shows "how instrumental acts tend, through the operation of the law of least effort, to become abbreviated into 'gestures' and how the latter may then take on 'signaling' significance"; the stage is thus set for understanding the elements of language development.—*F. W. Finger* (Brown).

965. **Murphy, J. Gesture, magic and primitive art.** *Man*, 1940, **40**, 119–121.—The simplest gesture "may be described as an act at the stage of conation or will which does not pass into the completed action." A gesture is a motor set for the attainment of some end, which in fact is not achieved, and may be considered, in Freudian terms, as a wish finding expression in mere gesture without actual fulfillment. Magic is similarly action at a distance expressing a wish. Both the magician and the primitive artist made gestures (ceremonies, carvings, paintings, etc.) which dramatized the food-animal, for example, with the purpose of compelling its capture to take place by the tribal hunters.—*M. D. Bown* (Columbia).

966. **Pickford, R. W. The psychology of the history and organization of Association football.** *Brit. J. Psychol.*, 1940, **31**, 80–93 and 129–144.—A brief account is given of the development of organized Association football in England, and of its expansion to other parts of the world. The change from the violent games that were its forerunners to regularized football was essentially due to the growing public desire for harmoniously organized group games of interest to spectators as well as to players. Games such as football are symbolic rather than actual combats between the rival teams and the spectators who enjoy the game with sympathetic interest. Association football has spread widely by a process of cultural borrowing from group to group. The history of the Football Association shows that the fundamental nature of the public interest in the game has enabled it to conduct its affairs and international relationships without resorting to threats, violent measures, or schisms because men were inspired by the fundamentally cooperative nature of the group game.—*M. D. Vernon* (Cambridge, England).

967. **Popenoe, P. Modern marriage.** (Rev. ed.) New York: Macmillan, 1940. Pp. xi + 299. $2.50. —First published in 1925, this book has been rewritten with much new material included and with many references in the literature cited. It constitutes a simple presentation, primarily for men, of the innumerable problems and questions relating to marriage, personal, family, and home adjustments, and of the many considerations that influence marital happiness. Bibliography of 131 references.—*M. H. Erickson* (Eloise Hospital).

968. **Reid, I. De A. General characteristics of the negro youth population.** *J. Negro Educ.*, 1940, **9**, 278–289.—This paper discusses the following aspects of negro youth: forces which form the community background; statistics of population distributions; health status, including birth, sickness, and death rates; occupational trends; economic characteristics; educational determinants; and attitudes toward the social situations.—*W. E. Walton* (Nebraska).

969. **Reuter, E. B. Some observations on the status of social psychology.** *Amer. J. Sociol.*, 1940, **46**, 293–304.—Owing to the relatively recent isolation of social psychology as a field of research there is some confusion and conflict in the concepts and points of view, in problems and methods of research. Assuming that the effort to understand the development of the person provides the main problem for social psychology, the author states that this effort is divided into two distinct and mutually exclusive schools of thought. One approaches the problem from an essentially neurological point of view; the other conceives social nature to be developed through interaction from an active but relatively amorphous and plastic original nature. From the author's point of view a systematic social psychology "would concern itself with the patterning of acts determined by relationships, with the development of personalities in response to expectations and demands, with the formation and change of attitudes through participation in the culture, with the definition of types as systems of roles, and with other matters related to the person and to social behavior."—*D. L. Glick* (Brown).

970. **Rigg, M. G. Speed as a determiner of musical mood.** *J. exp. Psychol.*, 1940, **27**, 566–571.—"Five short musical phrases, three happy in mood and two sad, were played, each at six different metronome speeds, to 88 observers. The general principle that fast tempo tends to make music happy while slow tempo has the opposite effect, was abundantly illustrated in the data."—*H. W. Karn* (Pittsburgh).

971. **Róheim, G. Society and the individual.** *Psychoanal. Quart.*, 1940, **9**, 526–545.—Kardiner postulates in his book "The Individual and His Society; the Psychodynamis of Primitive Social Organization" (see XIV: 1988), that society and the basic disciplines create a personality structure and that personality structure is reflected in secondary institutions. The author takes exception to this on the grounds that the basic biological structure of man, his prolonged infancy, and his relatively precocious libidinal development constitute the bases of society, of the structure of the psyche, and of the fundamental mechanisms. This structure and these mechanisms "condition culture and society whose variations can be explained both by the inherent variation tendency in these mechanisms and by the history and interaction of human groups. The framework so created conditions the individual. But even this conditioning is not one-sided. The individual adapts to institutions and also modifies them by the necessarily incomplete nature of his adaptation."—*M. H. Erickson* (Eloise Hospital).

972. **Rohrbaugh, L. H. Vectors in group change.** Philadelphia: University of Pennsylvania Press, 1940. Pp. 85.—In this dissertation the author suggests a way in which a sound and effective science of human relationships might be developed.—(Courtesy *J. educ. Res.*).

973. **Sanford, G. A. Selective migration in a rural Alabama community.** *Amer. sociol. Rev.*, 1940, **5**, 759–766.—Emigration from and immigration to one small town in Alabama is studied in relation to occupational and educational level.—*I. L. Child* (Harvard).

974. **Schneider, J. Class origin and fame: eminent English women.** *Amer. sociol. Rev.*, 1940, **5**, 700–712.—Fame, as defined by listing in the *Dictionary of National Biography*, is studied in relation to sex, class origin, and activity in which fame is achieved, and the interaction of these variables.—*I. L. Child* (Harvard).

975. **Semeonoff, B. Further experiments in a new approach to the testing of musical ability, with special reference to groups of secondary school children.** *Brit. J. Psychol.*, 1940, **31**, 145–161.—In this experiment a test of musical understanding (applying descriptive terms to various musical

selections), a test of musical taste, and a test of musical knowledge were given to 270 children aged 12–15. In general, test scores did not increase with age, but, particularly in the case of musical understanding, the opposite took place. Scores for taste and understanding were uncorrelated, but both correlated with knowledge. Boys were better in the understanding test, girls in that of taste. Significant differences were also found between those who played an instrument and those who did not. No conclusive evidence was obtained as to the influence of education.—*M. D. Vernon* (Cambridge, England).

976. **Silverberg, W. V. On the psychological significance of *Du* and *Sie*.** *Psychoanal. Quart.*, 1940, **9**, 509–525.—By tracing the evolution of the specific language custom exemplified by the use of *Du* and *Sie*, it becomes possible to understand some of the effects unconscious processes have had on the interplay between the individual and his culture. The author discusses the use of the terms of *Du* and *Sie*, their significances in certain situations, and the meaningfulness of the taboos attached to them. He feels that this language custom derives from the castration fear, and its development and perpetuation is expressive of the need to protect the personal nucleus. Parallels are drawn with comparable manifestations in mental patients and the language customs of primitive peoples.—*M. H. Erickson* (Eloise Hospital).

977. **Strode, J., & Strode, P. R. Introduction to social case work.** New York: Harper, 1940. Pp. 234. $2.50.

[See also abstracts 624, 646, 651, 861, 1051, 1105.]

CRIME AND DELINQUENCY

978. **Andriola, J. P. Some suggestions for treating the defective delinquent.** *J. crim. Law Criminol.*, 1940, **31**, 297–302.—Feeblemindedness should not be defined by standing on an intelligence test but by criteria of socially acceptable behavior. Of the total feebleminded population about 10% or 100,000 are delinquent. Only in Massachusetts, New York, and the federal penal system are feebleminded delinquents given special treatment. A program for handling this class of delinquents is summarized.—*L. M. Hanks, Jr.* (Illinois).

979. **Argow, W. W. The function of a research department in an institution for delinquents.** *J. crim. Law Criminol.*, 1940, **31**, 280–290.—Correctional institutions should hire a research staff to study classification and treatment of the delinquents. The author presents: arguments to convince administrators of the necessity for research; outlines of problems that may be studied; the basic necessities in equipment and personnel; and an appendix of current research in 112 schools for delinquents as determined by questionnaire in January 1939.—*L. M. Hanks, Jr.* (Illinois).

980. **Cox, W. B., & Shelly, J. A. [Eds.] Handbook of American institutions for delinquent juveniles. Vol. 3: Pacific Coast States.** New York: Osborne Association, Inc., 1940. Pp. 426. $1.25.

981. **Diggs, M. H. The problems and needs of negro youth as revealed by delinquency and crime statistics.** *J. Negro Educ.*, 1940, **9**, 311–320.—The comparatively high incidence of juvenile delinquency among Negroes is caused by: extensive family disorganization; absence of community controls; absence of parental controls; inferior and unsavory home conditions and social environment; lack of recreation; and economic and social inferiority. The juvenile court should play a part in the treatment of the individual case as it actually does in some districts. Educational agencies should meet fundamental human needs more adequately rather than mere academic traditions.—*W. E. Walton* (Nebraska).

982. **Fernandes, C. Experienoia penosa durante a infancia; esquizoidia e crime.** (Painful experiences during childhood; schizophrenia and crime.) *Neurobiologia, Pernambuco*, 1939, **2**, No. 4.—[Abstracted review; original not seen.] By analyzing the case history of a murderer, the author comes to the conclusion that the unfortunate circumstances under which the patient grew up led first to a neurosis and later to crime.—*F. L. Goodenough* (Minnesota).

983. **Hentig, H. v. Remarks on the interaction of perpetrator and victim.** *J. crim. Law Criminol.*, 1940, **31**, 303–309.—Though in robbery or theft the victim may not interact socially with the perpetrator, in murder the victims, which are divided into 4 classes, may contribute greatly toward their own death. A tormenting parent may excite the anger of his children until it reaches the point of murder; in rape the victim has frequently acted as seducer; in felony of false pretenses the victim usually provokes the crime by attempting to gain dishonestly.—*L. M. Hanks, Jr.* (Illinois).

984. **McGeorge, J. Juvenile delinquency.** *Med. J. Aust.*, 1939, **2**, 94 ff.—(*Child Develpm. Abstr.* XIV: 1406).

985. **Metfessel, M. Concepts of motivation, restraint, and traits in the study of crime.** *J. gen. Psychol.*, 1940, **23**, 415–430.—Physical punishment is an expression of sovereign or *S*-power, and moral punishment, e.g., disapproval, of moral or *M*-power. Acts not desired by the many are designated as crimes through *S*-power and as abnormality through *M*-power. Control through these powers is essentially a problem of motives and restraints. There follows a discussion of these concepts and of reward and punishment in relation to crime. Regarding criminal tendencies a notion of inner criminality still exists in our thinking; a criminal, however, is a criminal in only some of his relationships. The word criminal is probably used as "a statement of probability that such an individual will enter into criminal relationships in selected situations," the situations being designated by fiat of *S*- or *M*-power. —*C. N. Cofer* (U. S. Employment Service).

986. **Rathmell, T. K., & Corrin, K. M. Retrospective study of a case involving homicide.** *J. nerv. ment. Dis.*, 1940, **91**, 316–322.—The case history

of a woman who committed homicide is presented and discussed from the viewpoint of the relationship between an anoxia resulting from cerebro-vascular hypoplasia and the patient's emotional instability.—*R. C. Moore* (Boston Psychopathic Hospital).

987. **Thomson, M. D. The intelligence of 567 prisoners confined in the Kentucky State Reformatory.** *J. appl. Psychol.*, 1940, **24,** 628–632.—The IQ's of prisoners who had been tested by means of the Otis Classification Test were compared with the IQ's of others who had been tested with the Illinois Examination. Higher IQ's were obtained with the Otis test, and when classified according to type of crime, there was little correspondence between the average IQ's of the prisoners.—*E. E. Ghiselli* (California).

[See also abstract 859.]

INDUSTRIAL AND PERSONNEL PROBLEMS

988. **Alexandrov, V. V. [The examination of ocular function in marine engineers.]** *Vestn. Oftal.*, 1940, **16,** No. 2–3, 162 ff.—[Abstracted review; original not seen.] 3 of 27 engineers who violated signal rules showed defects of color vision; failures were attributed also to sunglare, fog, change of illumination, and inaccurate depth perception. Transport engineers should be given depth perception tests.—*D. J. Shaad* (Lawrence, Kansas).

989. **Armstrong, H. G. Developments in aviation medicine.** *Ann. intern. Med.*, 1940, **13,** 2212–2216.—*W. J. Brogden* (Wisconsin).

990. **Báez, C. Psicología, moral y derecho.** (Psychology, morality, and law.) Asunción, Paraguay: 1940. Pp. 32.

991. **Blatt, N. Sélectionnement des aviateurs, au point de vue de leur organe visual.** (Selection of flying personnel, from the point of view of their visual organs.) *Rev. Serv. Santé milit.*, 1940, March.—[Abstracted review, original not seen.] To assure proper selection of aviation personnel the following must be examined: central acuity, perimetric fields, fundus, light sense, muscle balance, estimation of distance and stereoscopic vision, color sense, and mental agility.—*R. J. Beitel, Jr.* (American Optical Company).

992. **Bradshaw, W. The juvenile court, the parent, and the child.** *Ment. Hyg. Rev.*, 1940, **1,** 86–92.—A judge describes cases which have come to his attention as illustrations of the part played by the home in producing conflicts which in turn result in delinquency.—*C. M. Louttit* (Indiana).

993. **Campbell, P. A., & Hargreaves, J. Aviation deafness: acute and chronic.** *Arch. Otolaryng., Chicago,* 1940, **32,** 417–428.—*W. J. Brogden* (Wisconsin).

994. **Dodge, A. F. What are the personality traits of the successful clerical worker?** *J. appl. Psychol.*, 1940, **24,** 576–586.—The ratings on job success of 192 clerical workers in 4 different organizations were correlated with their scores on a personality inventory. The coefficients ranged from .64 to −.04. An analysis of the most differentiating items indicated that the successful clerical worker is not moody or subject to worry, is even tempered, unwilling to accept responsibility, non-social, lacks self-sufficiency, and does not crave admiration.—*E. E. Ghiselli* (California).

995. **Dorcus, R. M. Methods of evaluating the efficiency of door-to-door salesmen of bakery products.** *J. appl. Psychol.*, 1940, **24,** 587–594.—The amount of bakery products which are purchased in a given area will be a function of the size of the area and of the economic level of the families who live in it. Consequently, the success of door-to-door salesmen handling bakery products cannot be measured adequately in terms of the number of customers or the total volume of sales. The best measure of job success will be to compare each salesman's sales with the potential market for bakery products in this area, which can be estimated from the size of the area, the economic levels it includes, the amount of bakery products consumed, and the price of the products.—*E. E. Ghiselli* (California).

996. **Hall, M. Training your employees; suggestions to executives and supervisors.** *Soc. Person. Adm. Pamphl.*, 1940, No. 3. Pp. 26.

997. **Hay, E. N. Inaugurating a test program.** *Person. Ser. Amer. Mgmt Ass.*, 1940, No. 43, 25–34.—The inauguration and growth of the testing program for the personnel department of the Pennsylvania Company are outlined and the problems, costs, and results discussed. The paper concludes with suggestions concerning the inauguration of a testing program.—*W. E. Walton* (Nebraska).

998. **Kupke, E. Das Leistungsgradschätzen.** (The estimation of degree of performance.) *Industr. Psychotech.*, 1940, **17,** 121–130.—In previous methods of studying output, like the Taylor and Bedeaux systems, the claim of objectivity has not been justified. Industrial practice continues to depend to a degree upon subjective judgments. Consequently it is important to know the conditions for training in the making of estimates. There is a tendency to take as normal a somewhat atypical grade of performance, in accordance with the unconscious desire of the manager to grant or refuse leeway to the norm. The Bedeaux time-study formula is fairly appropriate in so far as actual working conditions are approximated. Methods of training judges will be discussed in a later paper.—*H. D. Spoerl* (American International College).

999. **Marulli, A. Psicotecnica e aviazione.** (Psychotechnics and aviation.) *Med. aeronaut., Roma,* 1939, **2,** 113–132.—[Abstracted review; original not seen.] Marulli examines the complex and numerous aeronautic activities necessitated by specialization. He discusses the professional attainments of pilots, the characteristics to be inquired into on visits of inspection, the results of vocational professional tests, and the factors which influence the personality during flying. He recommends codification of the requirements for pilots which have

already been worked out in Italy.—*M. E. Morse* (Baltimore).

1000. **McGehee, W., & Owen, E. B. Authorized and unauthorized rest pauses in clerical work.** *J. appl. Psychol.*, 1940, **24**, 605–614.—The introduction of two short rest pauses into the working day of 16 comptometer operators, without reducing total working time, was found to reduce unauthorized rest pauses and to increase speed of work. Questionnaire responses from the operators revealed that the primary objection to the authorized rest pauses was the crowded condition of the rest room.—*E. E. Ghiselli* (California).

1001. **Moore, A. D. Perceptual disorientation during landing of airplane.** *Science*, 1940, **92**, 477–478.—Twice while travelling as an airplane passenger the author has observed the following phenomenon: As the airplane was coming in to land, through the window beside him the earth appeared horizontal but through the window on the opposite side of the airplane the earth appeared tilted forward at an angle of about 15°. He explains the disorientation by observing that the frame of the window beside him is too far beyond his angle of vision to serve as a frame of reference for objects outside the airplane. However, the window frame on the opposite side has served as a frame of reference for exterior objects and this frame and the earth have both appeared horizontal during level flight. During landing the perceptual habit established while in level flight creates the illusion that the earth and not the airplane is tilted.—*F. A. Mote, Jr.* (Connecticut).

1002. **Moore, B. V. How can psychology help industry?** *Person. Ser. Amer. Mgmt Ass.*, 1940, No. 43, 3–11.—Psychologists furnish not only testing techniques for the selection of workers, but also an understanding of the motives which enter into the continual process of the worker's adjustment. This understanding can be applied in leadership training, as illustrated by a project which the author describes. Any significant concept in psychology can be interpreted to and used by men of industry.—*W. E. Walton* (Nebraska).

1003. **Newman, H., & Fletcher, E. The effect of alcohol on driving skill.** *J. Amer. med. Ass.*, 1940, **115**, 1600–1602.—*W. J. Brogden* (Wisconsin).

1004. **Paterson, D. G., & Tinker, M. A. How to make type readable.** New York: Harper, 1940. Pp. xix + 209. $2.50.—Subtitled "A manual for typographers, printers and advertisers," this book is based on 12 years of research involving speed of reading tests given to 33,031 persons. It deals with the relationship between legibility in the ordinary reading situation and such typographical factors as type style, size, leading, width of line and of margins, columnar arrangement, color of print and of background, and printing surface. The authors systematically surveyed current printing practice with regard to a given typographical factor, conducted studies to measure the influence of this factor on speed of reading, and determined reader opinion with respect to apparent legibility. Specific recommendations for the selection and arrangement of type are made. An appendix for research workers gives an account of the experimental methods employed.—*W. A. Varvel* (Chicago).

1005. **Quednau, H. Eignungsprüfung für Lochkartenpersonal.** (Aptitude testing of punched-card operators.) *Industr. Psychotech.*, 1940, **17**, 130–164.—The study included an aggregate of 200 female workers, both beginners and experienced operators, of the German Hollerith Machine Co. The punching of record cards for statistical treatment involves an interesting assortment of abilities: alertness of understanding, sensitivity to rhythm, concentration, visual response to symbols, etc. The testing program covered a range from intelligence testing to a test of achievement based on actual card-punching practices. The factor of reaction to monotony was noted but not closely studied beyond determining the probable existence of about 4 psychological types in reference to it. The bibliography includes the previous studies.—*H. D. Spoerl* (American International College).

1006. **Selling, L. S. The psychiatric findings in the cases of 500 traffic offenders and accident-prone drivers.** *Amer. J. Psychiat.*, 1940, **97**, 68–79.—The median intelligence quotient was found to be 77 with a range of 31–122. 36% of the cases had IQ's below 70; 51% were alcoholic; and 2.2% had recognizable psychoses. In the majority of the cases of actual neurosis or neurotic tendencies the police were symbols of a hated father.—*R. Goldman* (Boston Psychopathic Hospital).

1007. **Singer, C. I. Climate and military preparedness.** *J. Amer. med. Ass.*, 1940, **115**, 1421–1424.—Experiences in the World War, the Russo-Finnish war, and the Norwegian campaign have demonstrated the importance of proper climatic adaptation of the soldier. On the basis of these experiences the author makes, among others, the following recommendations for the U. S. Army: (1) Recruits should be trained under the least favorable climatic conditions of northern and southern regions to provide troops hardened for subarctic rigor and tropical mugginess. (2) Studies should be made on the vestimental climate of the soldier by frigorometric methods, with different clothing materials and series of cutaneous temperature readings under these materials. (3) Artificially controlled climatic testing laboratories should be installed for the selection of men for special tasks. (4) The climate of the site of training should be considered in relation to the climate of the proposed site of action of a specific military unit. (5) A special climatic advisory board should be created.—*S. Ansbacher* (Squibb Institute for Medical Research).

1008. **Taylor, H. C. A test program in an industrial company.** *Person. Ser., Amer. Mgmt Ass.*, 1940, No. 43, 12–24.—Many psychologists have underestimated the effectiveness of tests in industry, since they have tended to judge in terms of perfection rather than in terms of the increase of effective-

ness of the hiring job. The methods of standardizing industrial tests are discussed as to expense and time, and practical methods of shortening the latter and gearing-up an industrial test program to meet current conditions are discussed.—*W. E. Walton* (Nebraska).

1009. **Yoder, D. Personnel and labor relations.** New York: Prentice Hall, 1938. Pp. xix + 644. $4.00.—A comprehensive description and analysis of present-day labor relations and personnel practices is presented. The point of view is taken that the trend in industrial relations demands that problems be handled in an impersonal manner, "that employees be regarded as groups rather than individuals, that their welfare as a whole be made the definitive issue in the evaluation of managerial policies with respect to workers." There are 24 chapters on the following topics: introduction; background; approaches to study of personnel relations; simple statistical tools; job analysis, description, and classification; sources of labor supply; 2 chapters on selection; education and training; industrial unrest; hours of work; service rating; wage plans; wage policies; promotion and transfer; industrial health; employee morale; interest and discipline; causes of unstable employment; employment stabilization; employee representation; collective bargaining; service functions; personnel administration in public service; and research. 10 appendices list statistical reports and reference tables. Each chapter contains suggested readings, footnote references, and problem exercises.—*S. B. Sells* (Brooklyn College).

[See also abstract 1012.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

1010. **Adams, F. J. College degrees and elementary-school intelligence quotients.** *J. educ. Psychol.*, 1940, **31**, 360–368.—Of an original group of 1505 subjects (median IQ 102) tested in elementary school, with the National Intelligence Test, 150 received 1 college degree (median IQ 116) and 17 received 2 college degrees (median IQ 114).—*R. M. Bellows* (Maryland).

1011. **Allison, G., & Barnett, A. Freshman psychological examination scores as related to size of high schools.** *J. appl. Psychol.*, 1940, **24**, 651–652.—Students at the Texas Technological College who come from high schools with a small enrollment tend to make lower scores on the American Council on Education Psychological Examination than those who come from larger high schools.—*E. E. Ghiselli* (California).

1012. **Anderson, H. D., & Davidson, P. E. Occupational trends in the United States.** Stanford Univ., Calif.: Stanford University Press, 1940. Pp. x + 618. $6.50.—"This study of occupational trends is offered to educators, vocational guidance specialists, personnel managers, and social scientists as basic information concerning the composition and changing conditions of the American working population." The reports compiled in the Census of Occupations from 1870 to 1930, together with estimates for 1940, furnish the basic data, and are supplemented by material drawn from a variety of other sources. The material is presented in 19 figures and 292 tables. The introductory chapter deals with the purposes and methods of the study, summarizes the general occupational trends from 1870 to the present time, and discusses the major factors which affect such trends. In 10 subsequent chapters the trends in 10 principle occupations are described in detail. In about 2 years a supplement (free to purchasers of this volume) presenting the data from the 1940 census in relation to the present analysis, will be published.—*E. E. Ghiselli* (California).

1013. **Anderson, I. H., & Dearborn, W. F. A sound motion-picture technique for teaching beginning reading.** *Sch. & Soc.*, 1940, **52**, 367–369.—Silent films which expose successive units of separate lines of consecutive sections of reading material tachistoscopically across and down the screen have proved of value in controlling eye-movements and increasing reading span and speed by reduction of cues. To these are now added a sound tract which gives the pronounciation of a word immediately after it is visually presented. This follows more exactly than class room procedure can do the requirement for Pavlov's conditioning. The substitute stimulus is the visual one which in reading must be associated with the meaning of the word for which the sound is already an adequate stimulus. The films should prove an interesting and useful device in teaching reading to beginners. Certain variations might be added such as a moving picture of the object named following the other two cues.—*M. Lee* (Chicago, Ill.).

1014. **[Anon.] Handbook for young job hunters; a digest of current employment information with suggestions for preparation, seeking, and keeping a position.** New York: Metropolitan Employment Counsellors, 505 Fifth Ave. Pp. 28. $0.25.

1015. **Arcan, T. Methode pentru cunoasterea individualităţii, aplicate in liceele militare.** (Methods of determining individuality applied in military schools.) *Rev. Psihol.*, 1939, **2**, 392–407.—[Abstracted review; original not seen.] The intelligence test is a better measure for selecting the entering students in the military school than the general knowledge examination. The more intelligent students with low median grades in the entrance examination, testing knowledge, are later much higher in achievement than the less intelligent students with high median grades in the entrance examination. In the course of the schooling period the former maintain their rank of intelligence while the latter fluctuate in intelligence.—*S. M. Strong* (Howard).

1016. **Baisden, L. B., & Burkhard, W. J. Children's preferences in school subjects and the curriculum.** *Yearb. Calif. elem. Sch. Prin. Ass.*, 1940, **12**, 41–47.—The authors report an attempt to discover

indirectly the pupils' evaluation of the curriculum. Nearly 6000 children in the elementary grades and 4000 in the junior high schools participated. Each child gave information regarding the subjects liked best and least with reasons in each instance.—*P. S. de Q. Cabot* (Simmons).

1017. **Bell, H. M. Matching youth and jobs.** Washington, D. C.: American Council on Education, 1940. Pp. 277. $2.00.—This is a partial description of the findings of an inquiry into the needs of young people seeking jobs and of ways of meeting these needs, sponsored jointly by the American Youth Commission and the U. S. Employment Service. Its dual purpose was fact-finding and experimental, and data were collected between January, 1938 and September, 1939 in 4 widely scattered metropolitan and 4 suburban and rural centers. Principal conclusions, supported by a considerable body of material, are: Occupational adjustment involves (1) realistic vocational guidance, (2) appropriate vocational preparation, and (3) eventual placement on the right kind of job. These services can best be provided by the communities through schools and public employment offices whose work is made more effective by technical assistance available from various federal bureaus and services. Vocational education is an essential element in effective schooling and should be used to enrich the curriculum and supplement vocational guidance. However, specialized vocational training is not a necessary function of all public schools. Within the local labor market effective adjustment can result only from a coordination of activities and agencies operating therein. (See also XV: 1067.)—*H. Beaumont* (Kentucky).

1018. **Benari, L. Diagnosticarea aptitudinei pentru matematică, prin teste.** (Diagnosis of mathematical aptitude through tests.) *J. Psihoteh.*, 1939, **3**, 160–169.—In the first part of this study (see XIV: 1556), results obtained from 3 mathematical exercises of the Kuhlman-Anderson intelligence test were compared with the results of the examination in mathematics administered at the time of admittance to the lyceum. The problem posed in this section is which of the two methods indicated mathematical aptitude more correctly. Of the 85 candidates who took the admittance examination 71 completed the first and 57 the second year. Their annual median grades in mathematics were compared with their scores in the initial mathematics examination and in the mathematical part of the intelligence test. The diagnostic value of the intelligence test was only 10% greater than that of the examination in mathematics. The difference between the two procedures is not significant.—*S. M. Strong* (Howard).

1019. **Betts, E. A. Spelling vocabulary study; grade placement of words in seventeen spellers.** New York: American Book, 1940. Pp. 72. $1.00.—This is a summary of an investigation of author opinions regarding the grade placement of words in 17 spellers published since 1929. Part 1 lists 8,645 words for grades II–VIII, with median grade placement, frequency, and grade range for each. Part 2 lists 209 grade I words and their frequencies in 8 spellers. The author gives suggestions regarding proper use of the data and an extensive spelling bibliography.—*R. G. Wetmore* (New York City).

1020. **Bixler, H. H. The standard elementary spelling scale.** Atlanta: T. E. Smith, 1940. Pp. 115. $0.64.—This spelling scale contains a list of 3679 words with tables indicating the percentage of pupils who can spell each word at each grade level from 2 to 8.—(Courtesy *J. educ. Res.*).

1021. **Center, S. S., & Persons, G. L. Experiences in reading and thinking.** New York: Macmillan, 1940. Pp. xii + 395. $1.20.—This is book 1 of a 3 book series of texts "designed primarily to improve the speed and comprehension of reading of pupils in secondary schools" and based on the educational philosophy that reading is thinking. Reading selections in book 1 include 52 long selections chosen from contemporary writers and 37 paragraphs for intensive study. They are classified in types of reading as to purpose as follows: to acquire information, to draw conclusions, to answer questions, to solve problems, to predict outcomes, to share experiences, and to form opinions. There are 170 individual exercises on the longer selections, covering comprehension, vocabulary, and written and oral expression of thought. In connection with the paragraph studies there are 84 problems. At the end of each selection a number of books on related topics are suggested, 324 in all. Attention is given to dictionary study and to oral reading, also a brief treatment on the organization of a book. In addition to the exercises in the book there is an accompanying workbook of 154 pages.—*L. M. McCabe* (Cambridge, Mass.).

1022. **Center, S. S., & Persons, G. L. Practices in reading and thinking.** New York: Macmillan, 1940. Pp. xiv + 473. $1.40.—This is book 2 of the Reading and Thinking series. "The introduction constitutes an invitation to make an adventure of reading." It provides reasons for such an adventure and discusses some of the causes for poor reading: eye span, vocalization, pointing, lack of concentration, inadequate vocabulary, and defects of sight. Reading selections include 53 long selections and 14 selections from newspapers and magazines. They are classified as to reading purpose under the categories given for those in book 1 (see XV: 1021) plus 3 others: to give proof, to discover main points, and to evaluate opinions. The newspaper and magazine selections present a thorough study of such types of writing as news items, editorials, feature stories, book reviews, etc., with the emphasis on understanding rather than on writing. As in book 1 there are exercises on comprehension, vocabulary, and expression, as well as suggestions for further reading (238 books listed). A general vocabulary test (multiple-choice type) of 400 words is included. A workbook of 156 pages accompanies this volume.—*L. M. McCabe* (Cambridge, Mass.).

1023. **Center, S. S., & Persons, G. L. Problems in reading and thinking.** New York: Macmillan, 1940. Pp. xiv + 657. $1.80.—The introduction of this volume, which is book 3 in the Reading and Thinking series, is intended mainly for the teacher and treats of basic features of reading such as mechanics, comprehension, interpretation, diagnosis, the use of graphs and tests, techniques of reading, and reading speed. 60 long selections and 33 selections for paragraph study are classified as in books 1 and 2 (see XV: 1021 and 1022). A total of 256 exercises is included and 383 books suggested for further reading. A section on "reading patterns of literary writing" provides a survey of the short story, plays, the novel, poetry, and the essay. A workbook of 136 pages is provided to accompany this volume.—*L. M. McCabe* (Cambridge, Mass.).

1024. **Chassell, J. Individual counseling of college students.** *J. consult. Psychol.*, 1940, **4,** 205–209.—The problems of college students, approximately 10–25% of whom need expert counseling, are focussed within the areas of professional future, and social and sexual adjustments. On the basis of 2 years of consulting experience in a women's college the writer believes many of the difficulties resolve into deep personality problems. Techniques and therapeutic objectives are considered in relation to emergency situations: definition of the situation, resulting in a functional diagnosis where history taking and mental examinations are of little help; the release principle, which should operate in an atmosphere of security; interpretation and reassurance, which should enable the patient to acquire increased self-control; psychoanalysis, which is rarely needed; and finally environmental modification, including the efforts of other faculty members and parents.—*P. S. de Q. Cabot* (Simmons).

1025. **Chesher, E. C. Reading disability from a neurologic point of view.** *Arch. Ophthal., Chicago,* 1940, **24,** 422.—Abstract and discussion.

1026. **Conklin, A. M. Failures of highly intelligent pupils; a study of their behavior by means of the control group.** *Teach. Coll. Contr. Educ.*, 1940, No. 792. Pp. xii + 250.—32 boys and 13 girls with an IQ of 130 or over, from grades II through VII, who were failing two or more major subjects were compared with a control group of similar IQ. Two statistical differences found are (1) that the paternal grandparents of the control group have been in America longer, and (2) that the failing group devotes more time to paid employment. Case studies reveal that the failing group has had fewer physical disabilities during school, scores lower on the Symonds Studiousness Index, shows poorer risks in the opinion of psychiatrists, and has mothers of less favorable personalities. The similarities between the two groups exceed the differences. Appendices (109 pages) describe standardized tests, other forms, and sample case studies. Bibliography of 134 titles.—*J. M. Stalnaker* (Princeton).

1027. **Cowley, W. H. The educated-man concept in the twentieth century.** *Sch. & Soc.*, 1940, **52,** 345–350.—The educated man differs from the uneducated in terms of 3 kinds of achievement: acquision of specific skills, mastery of fields of knowledge, and development of attitudes, habits, and appreciations. The 6 basic skills he should have are: ability to speak correctly and effectively, to read with reasonable speed and competent comprehension, to write clearly, to read a foreign language with facility, to think clearly (which involves abstracting, comparing, infering, and generalizing), and to work and live with other people. The 6 fields of knowledge are (1) philosophy, religion, and literature; (2) politics, economics, and sociology; (3) science, its history, philosophy, and methods; (4) psychology and physiology; (5) human relations and their controlling principles; and (6) creative art, its history, and current expression. Among the attitudes and habits are openmindedness and enthusiasm for hard work, good talk, books and arts, and on these are based a system of values which is the core of one's personality.—*M. Lee* (Chicago, Ill.).

1028. **Crammatte, A. B. Vocational guidance in schools for the deaf.** *Amer. Ann. Deaf*, 1940, **85,** 381–390.—Schools for the deaf are strong in prevocational and specialized courses while exploratory courses and guidance courses are not far advanced. Occupational information, psychological testing, counseling, and continuation schools are not well developed. Few schools do extensive placement work, and follow-up work is neglected. The author hopes that the present renaissance of vocational education will result in a greater emphasis on vocational guidance as the most important and outstanding feature of education of the deaf.—*C. V. Hudgins* (Clarke School).

1029. **Cupcea S. Profesiunea academică şi constituţia morfologică.** (Academic profession and morphological constitution.) *Bul. eugen. biopol.*, 1939, **10,** 220–230.—[Abstracted review; original not seen.] Following the bio-typological studies of Kretschmer the author investigated the relation between (1) professional choice and constitution and (2) professional success and constitution. Regarding the first problem 300 male subjects between the ages of 19 and 22 were studied, and it was found: (1) students in medicine have a distinct tendency to be pyknic, (2) those in liberal arts and philosophy show a tendency to be asthenic, and (3) those in law and other sciences are of a median distribution. This classification tends to corroborate the notions held by Kretschmer. For the second problem a group of 133 adult males between the ages of 30–63 years, considered successful in their professions, were studied. Here also those in the more practical professions are pyknic while those in the theoretical professions tend to be asthenic. The practical consequences of knowing the morpho-physio-psychological constitution of an individual gains in importance through an evaluation of the energy of the individual.—*S. M. Strong* (Howard).

1030. **Cureton, E. E. Testing in college personnel service.** *J. consult. Psychol.*, 1940, **4,** 221–224.—In order to reduce the work of the college counsellor

all technical information should be collected and arranged conveniently before the personal interview. The information which tests can yield refers to absolute and relative level, growth, and trait differences, of which the latter 2 are the more important in personnel work. In achievement testing the best practice lags behind the best theory; comparisons between test results at college level are difficult and much overlapping of items and tested areas exists; comparable test batteries in mechanical and performance fields are noticeably absent. The validity of all mental hygiene and adjustment inventories is doubtful, and great caution should be used in interpreting the interest-pattern tests. A cumulative record system is indispensable to effective counseling.—*P. S. de Q. Cabot* (Simmons).

1031. **Curoe, P. R. V., & Wixted, W. G. A continuing experiment in enriching the active vocabularies of college seniors.** *Sch. & Soc.*, 1940, **52**, 372–376.—The authors repeated an earlier experiment controlling the conditions more carefully. A class of seniors in English was divided into a control and experimental group, and for the latter 3 minutes of each class meeting were devoted to a Today's Words project. Medians of the pre-test and post-test in vocabularly for the control group were 45 and 52 and for the experimental group 45 and 76. The upper and lower quartiles showed similar improvement for the experimental group. Evidently such focal efforts in language instruction are well worth while and should be the responsibility of college teachers in all subjects, not alone English.—*M. Lee* (Chicago, Ill.).

1032. **Darley, J. G. The structure of the systematic case study in individual diagnosis and counseling.** *J. consult. Psychol.*, 1940, **4**, 215–220.—Case work is impossible or inadequate without a defined minimum of case material and the coherence given by the structure of the case work process. The requirements to this end are: (1) A systematic case analysis within the following areas: general scholastic ability, achievement to date, aptitudes, disabilities, interests, attitudes, personality, and physical and socio-economic status. (2) A definition of the problems which may be classified into: financial, educational, vocational, family, health, and emotional. (3) Organization of the records. Such a framework entails greater, not less, case work skill and a good foundation in basic psychological theory. An outline of research problems is submitted.—*P. S. de Q. Cabot* (Simmons).

1033. **Davis, T. E. Vocational education and guidance in the negro secondary school.** *J. Negro Educ.*, 1940, **9**, 498–503.—There is a lag of vocational education and guidance in negro secondary schools. While waiting for money and equipment for a vocational program, much can be done toward changing adverse attitudes toward certain occupations, educating the youth to be responsible on the job, and, in general, training him so well that he can compete with others.—*W. E. Walton* (Nebraska).

1034. **Făcăoaru, M. P., & Purdilă, M. Raportul între starea economică a părinţilor şi calitatea şcolarităţii copiilor.** (The relation between the economic status of the parents and the scholastic ability of the children.) *Bul. eugen. biopol.*, 1939, **10**, 212–220.—[Abstracted review; original not seen.] The correlation between the economic status of the parents and the scholastic ability of the children, based on experiments with 521 high school students, is +.17. The median scholastic ability of girls of rich parents is superior to those of poor parents. The parents of scholastically very poor girls are richer than the parents of girls scholastically good. The parents of scholastically very high girls are richer than the parents of girls scholastically bad, medium, and good.—*S. M. Strong* (Howard).

1035. **Farquhar, G. C., & Gouch, J. A. An experiment in controlled reading.** *Amer. Ann. Deaf*, 1940, **85**, 355–361.—15 deaf pupils from Vth to VIIIth grade were given daily reading practice of 5–20 minutes with a metronoscope for a period of 12 weeks. Ophthalmographic records were obtained at the beginning and end of the experiment from these pupils and a control group. The experimental group showed a gain of 21.5% in reading-rate, against 11.9% for the control group. The average gain in reading efficiency (the product of the comprehension score and the reading rate) was 22% for the experimental against 7.1% for the control group.—*C. V. Hudgins* (Clarke School).

1036. **Fernández, E. Educational tests reach Colombia.** (Condensed from Rivista del Maestro, Oct., 1939.) *World Educ.*, 1940, **5**, 446–447.—A Peruvian educator comments on the publication of Alejandro Cano's book, "Pruebas Mentales y de Instrucción" (Mental and teaching tests). The book contains an historical survey of experimental psychology and the results of an adaptation of the Ballard tests given to students in the schools of Antioquía. It was found that Columbian children score on the average only half as high as children in the United States. According to the author of the review studies of a similar type are being conducted in Peru.—*H. L. Ansbacher* (Brown).

1037. **Floru, C., & Calavrezo, C. O clasă de bursieri la colegiul "Sf. Sava": aplicaţii psihologice in orele de meditaţie.** (A class of scholarship students at the "Sf. Sava" college: psychological observations during study periods.) *Rev. gen. Invăţămantului*, 1939.—[Abstracted review; original not seen.] (1) The students were asked to draw on a sheet of paper as many straight lines as time permitted, and the individual differences in response to this monotonous task were observed. (2) The physiognomy and conduct of the student were observed: his relations to his class; his level of ambition; his response to difficulties; and his work habits.—*S. M. Strong* (Howard).

1038. **Fries, C. C., & Traver, A. A. English word lists; a study of their adaptability for instruction.** Washington, D. C.: American Council on Education, 1940. Pp. ix + 109. $1.50.—A critical study of the

procedures and purposes in the construction of word-frequency lists with an evaluation of their practical utility in language study. Introduced by a historical survey of early experience with limited vocabularies in English, this report presents an analysis of the more outstanding word lists for spelling, writing, and reading, with special attention to the method of vocabulary selection employed. The techniques of word counts in the modern foreign languages, those used for determining average vocabulary size at various age levels, and the several approaches to the selection of a basic English vocabulary for teaching the language to foreigners, receive special consideration. 7 English word lists, selected from the many available, are subjected to detailed statistical analysis and comparison. Bibliography of 206 titles.—*R. C. Strassburger* (St. Joseph's College for Women).

1039. **Gengery, W. G. The holding power of the Indianapolis high schools.** *Stud. high. Educ., Purdue Univ.*, 1940, No. 37, 38–44.—Of 2,709 children entering the IXth grade of all Indianapolis high schools in September, 1933, only 45% were graduating at the expected time, June, 1937. Age, race, sex, intelligence, and economic status, all seemed to have some relation to dropping from school. Detailed data are given for one high school.—*C. M. Louttit* (Indiana).

1040. **Gibian, R. Report on pupils' background: a survey made at the Lexington School for the Deaf in May 1939.** *Amer. Ann. Deaf.*, 1940, **85**, 372–377.—Data from a study of the family background of 303 deaf pupils in a large metropolitan school are presented. Details of the social and economic conditions of the home and the causes of deafness are given.—*C. V. Hudgins* (Clarke School).

1041. **Goppert, H. R., Tiffin, J., & McComb, H. G. Purdue vocational achievement tests: technical information in electricity.** Lafayette, Ind.: Purdue Univ., 1940. Pp. 11. Pkg. of 20 and manual of directions $1.00.—Section 1 consists of 107 multiple choice questions (4 choices). Section 2 requires the identification of 11 symbols used to represent various parts of electric circuits (identification by number from a numbered alphabetical list of 14 such parts). Section 3 calls for the identification of 10 units of measure for a number of electrical quantities, characteristics, properties, or actions. Section 4 requires the identification of 4 effects of electric current in 12 devices using current for their operation. Section 5 tests historical knowledge, calling for identification of discoverers or inventors with their discoveries or inventions.—*L. M. McCabe* (Cambridge, Mass.).

1042. **Gray, W. S. [Ed.] Reading and pupil development.** *Suppl. educ. Monogr.*, 1940, No. 51. Pp. xi + 355.—This is a complete report of the proceedings of the third annual Conference on Reading sponsored since 1938 by the University of Chicago. Organized about the theme of the nature and types of pupil growth through reading, the methods of promoting such development, and the techniques for evaluating its extent, the report presents 51 papers, introduced by a discussion of the general theme. The following specific aspects of the problem are considered: (1) types of growth through reading; (2) growth in the interpretation of meaning; (3) development of ability to understand what is read in specific curriculum fields; (4) development of ability to read for different purposes; (5) growth in interests, appreciations, and tastes in reading; (6) development of basic reading attitudes, habits, and skills; (7) evaluating growth in and through reading; and (8) reading and the library. A brief summary recapitulates the major contributions of the conference discussions.—*R. C. Strassburger* (St. Joseph's College for Women).

1043. **Gupta, M. K. Program for "eyesight preservation day" in schools.** *Proc. All-India ophthal. Soc.*, 1938, **6**, 169–176.—[Abstracted review; original not seen.] Suggestions for recording symptoms of eyestrain and follow-up program for eyesight preservation.—*D. J. Shaad* (Lawrence, Kansas).

1044. **Hargrave, H. The La Porte guidance plan.** *Stud. high. Educ., Purdue Univ.*, 1940, No. 37, 12–24.—A description of the pupil guidance work in the junior and senior high schools of La Porte, Ind., and a job analysis of the work of the guidance counselor.—*C. M. Louttit* (Indiana.)

1045. **Heider, F. Report of the Clarence W. Barron Research Department, Psychological Division.** *A. R. Clarke Sch. Deaf*, 1940, **73**, 25–29.—An analysis was made of the results of an 8-year testing program in the Clarke School, in which the New Stanford Achievement Test was used. The average total score showed a 1.5 year retardation in educational age (comparison with 10-year-old hearing children), this retardation increasing with age and amounting to 6 years at 18. Results are also given in terms of scores made in the various sections of the test.—*F. W. Finger* (Brown).

1046. **Hildreth, G. H. Metropolitan achievement tests: primary I battery (revised).** Yonkers-on-Hudson: World Book Co. $1.15 per pkg. of 25.—This test of school achievement designed for pupils in grade I consists of 3 reading and 1 numbers tests. The battery was standardized on over 2000 pupils from 19 representative schools. Forms A, B, and C are available.—*M. Keller* (Butler Hospital).

1047. **Hildreth, G. H. Metropolitan achievement tests: primary II battery (revised).** Yonkers-on-Hudson: World Book Co. 1940. $1.25 per pkg. of 25.—This is a battery of achievement tests for pupils of grades II–III consisting of reading, arithmetic, spelling, and handwriting tests and available in 3 equivalent forms. Odd-even reliability coefficients (Spearman-Brown correction) for the subtests of Forms A and B range between .83 and .97.—*M. Keller* (Butler Hospital).

1048. **Hildreth, G. H., & others. Metropolitan Achievement Tests: Primary III battery (revised).** Yonkers-on-Hudson: World Book Co., 1940. $1.50. per pkg. of 25.—This test, standardized for grades 3^9 to 4^5, measures achievement in reading, vocabu-

lary, arithmetic fundamentals and problems, and language usage and spelling. Forms A, B, and C are available. Odd-even reliability coefficients (Spearman-Brown correction) range between .89 and .96.—*M. Keller* (Butler Hospital).

1049. **Hitz, J. B. Methods for visual testing in schools.** *Arch. Ophthal., Chicago*, 1940, **24**, 221–224.—A comparison is made of results of a simple acuity test (Snellen chart with 20/30 regarded as passing), the Betts test, and a third test which combined an acuity test with the Duane screen test and the Worth dot test at 6 m. and at 33 cm. Consistent eye movement on occlusion with distant fixation, deviation in, or deviation out of more than 5$^{\Delta}$ with near fixation represented failure in the Duane test. Fusion of the dots at near and far was required in the Worth test. Results showed that the acuity test alone was passed by 89.7%; the Betts test by only 17.4% unless scored by the Iowa method which raised this percentage to 58.4; and the third test by 55.4%. Tests were performed on 745 school children aged 8–16 years by three lay examiners who had had a brief training in the use of the tests. The author recommends the third test as representing a mean between the inadequacy of the Snellen test alone and the time-consuming Betts test with its excessive percentage of failures.—*M. R. Stoll* (American Optical Co.).

1050. **Hudgins, C. V. Report of the Clarence W. Barron Research Department, Division of Experimental Phonetics.** *A. R. Clarke Sch. Deaf*, 1940, **73**, 31–36.—This report covers further work on the problem of voice production and breath control. Preliminary results of a second program are also reported. Results seem to indicate that audiograms obtained by the use of pure-tone audiometer do not predict with certainty the capacity of children with impaired hearing to benefit from an auricular training program. The speech-hearing tests devised and partially standardized at the Clarke School are designed to supplement the audiometric method.—*F. W. Finger* (Brown).

1051. **Kremsier, I. Az etikai nevelés kérdése a 10–12 éves korban.** (The problem of education in ethics between the ages of 10 and 12.) *Gyermek*, 1939, No. 2.—[Abstracted review; original not seen.] The conclusions in this article are based on empirical observations and on results of individual and group experiences by the author with children of the first and second year secondary school. Between the ages of 10–12 students make use of ethical concepts only as simple literary forms without comprehending their basic meaning; the range of ethical concepts shows very little change between these ages, although at the age of 12 the concepts are more differentiated. Courses in ethics should be adapted to the age level.—*S. M. Strong* (Howard).

1052. **Laycock, S. R. Mental health qualifications for special class teachers.** *J. except. Child.*, 1940, **7**, 4–8.—The qualifications are: (1) emotional maturity; (2) enjoyment of the work; (3) a personally achieved philosophy of life: (4) adaptability and flexibility; (5) normal range of outside human contacts; and (6) understanding of one's own personality.—*L. A. Averill* (Worcester Teachers College).

1053. **Lloyd-Jones, E. Variations in college personnel programs.** *J. consult. Psychol.*, 1940, **4**, 201–205.—College personnel programs in this country are characterized by a great variety of functions, basic principles, and dynamics of organization. Examples are given to illustrate this diversity. The comprehensive list of 23 functions regarded by the American Council in Education as constituting a complete personnel program is given.—*P. S. de Q. Cabot* (Simmons).

1054. **Margolis, A. K. The use of dramatics as a means of character education.** *J. except. Child.*, 1940, **7**, 19–22.—Dramatics are employed in the Juvenile Detention School in Chicago to aid in the establishing of desirable habits and attitudes. While it is difficult to evaluate this sort of work, it appears that a real appreciation of accepted ideals and standards is afforded these children.—*L. A. Averill* (Worcester Teachers College).

1055. **Mendenhall, G. S. The influence of the arts on the lives of handicapped children.** *J. except. Child.*, 1940, **7**, 11–19.—Participation by the handicapped in music, rhythmics, dramatics, folk-dancing, clay modeling, and painting is one of the best ways to help these children to develop socially and emotionally.—*L. A. Averill* (Worcester Teachers College).

1056. **Mooney, R. L. The Bureau program for 1939–40: vocational guidance.** *Educ. Res. Bull., Ohio St. Univ.*, 1940, **19**, 434–435.—*M. V. Louden* (Pittsburgh).

1057. **Muller, L. M. A rural guidance program.** *Stud. high. Educ., Purdue Univ.*, 1940, No. 37, 85–97.—Describes the history and operation of the guidance program in Rockland County, N. Y.—*C. M. Louttit* (Indiana).

1058. **Olson, W. C. Reading as a function of the total growth of the child.** *Suppl. educ. Monogr.*, 1940, No. 51, 233–237.—Longitudinal growth studies of the total development of a group of children conducted at the University of Michigan laboratory school over a period of 5–8 years provide a means for evaluating reading achievement as an aspect of the growth of the child as a whole. Illustrative instances reveal reading development as an integral function of an organismic growth, described in terms of a sampling of its several aspects, which is a total unified pattern. In the case of exceptions to this generalization where disability in reading results from maturational factors, reading at times can be made an integral part of total growth by providing an adequate amount of experience, although the upper limit of development will be defined by the total growth configuration. The nurture of growth in reading cannot be accomplished successfully independently of a recognition of the relation of this function to the growth needs of the child.—*R. C. Strassburger* (St. Joseph's College for Women).

1059. **O'Shea, H. E. Problems in college student adjustment service.** *J. consult. Psychol.*, 1940, **4**, 210–215.—The activities of a Midwestern group of 30 college psychiatrists and clinical psychologists who for the past 4 years have met regularly to discuss common problems are reported. The 12 topics discussed in this paper are: percentage of students reached, type of students needing most help, use of group therapy, value of mental hygiene courses, ways and means of encouraging students to use a mental health service, criteria for excluding students from college, responsibility of the college toward the subsequent adjustment of excluded students, cooperation between mental hygiene officers in different colleges where there are transfer students, relationships with deans and other administrative officers, protection of students' confidences, role of the mental hygienist in a teacher training program, and training of mental hygiene workers in colleges.—*P. S. de Q. Cabot* (Simmons).

1060. **Payne, B. F. Effect of vision on reading disability.** *Arch. Ophthal., Chicago*, 1940, **24**, 423.—Abstract and discussion.

1061. **Peatman, J. G. Organization of curricular information for guidance and counseling at the College of the City of New York.** *J. consult. Psychol.*, 1940, **4**, 225–228.—A bulletin of curricular information organized according to a definite schedule and available to all students is described. Vocational trends and knowledge required for each vocational and cultural field are presented according to the following general pattern: background courses, especially relevant elective course, other desirable elective courses, required graduate training, specific fields of possible employment, and sources of information about the field. The section on clinical psychology is reproduced as an illustration.—*P. S. de Q. Cabot* (Simmons).

1062. **Pendorf, W. M. A comparative study of departmental majors.** *Sch. & Soc.*, 1940, **52**, 407–408.—Analysis of the records of the graduating class of 1937 at the University of Michigan gives data on grade point averages and number of semester hours of departmental work for 773 students. The rank correlation coefficient between grades and hours is only .346 ± .197. Limitations of interpretation of these findings are pointed out.—*M. Lee* (Chicago, Ill.).

1063. **Pennington, L. A. Shifts in aspiration level after success and failure in the college classroom.** *J. gen. Psychol.*, 1940, **23**, 305–313.—In the first experiment 198 college students predicted the letter grade each expected to make on the next day's mid-term examination. Of the 99 who failed to achieve this expected result 34% lowered their next predictions, of their marks on the final test; the rest restated their levels as before. Of those reaching or exceeding the hoped for grades, 36% raised their next estimates, 2% lowered them, and the rest did not change them. In the second experiment, students predicted their course grades at the beginning of the term and followed their relative class standing throughout the term. Of students whose class standings were below their expected marks the majority lowered their prediction of success on the final test, the extent of the reduction in estimated grade being related to the degree of failure to achieve the expected class standing. Only a few of the group successful in estimating their grade levels raised their aspiration levels for the final test. In the third experiment, estimates of grades were again made at the beginning of the course and just prior to the final examination. In terms of the initial level indicated, success or failure on 4 tests given during the course was determined. Successful students did not raise their final grade predictions. The failures either restated the first estimate or lowered it, and the amount of decrease was related to the number of failures on the 4 tests.—*C. N. Cofer* (U. S. Employment Service).

1064. **Pond, F. L. Inventory of reading experiences (test, scoring scale, and manual of directions).** Stanford University, Calif.: Stanford Univ. Press, 1940. Manual, pp. 8; test, pp. 8. $1.75, pkg. of 25 (including manual and scoring scale).—"The *Inventory of Reading Experiences* is designed for high school and college students to appraise the quality and quantity of reading experiences." Part 1, the qualitative inventory, represents an analysis of types of reading materials and types of motivation, which in turn are divided into separate categories, presenting in 100 items a comprehensive sampling of the total pattern of reading experiences. In weighting the responses in part 2, the quantitative inventory, a criterion was secured from the 4 weeks' diary recordings of XIIth-grade students under 10 types of reading activity, such as hours spent each day in reading or study, visits to a library, number of magazines read each day, etc. Reliability by the split-half method for a group of 279 XIth-grade students was .922 ± .006 for part 1 and .911 ± .007 for part 2. Other subjects discussed in the manual are validity, veracity, and objectivity of the inventory technique, uses of the inventory, directions, and interpretations. Results bear out Eberhardt's finding that, while total amount of reading decreases with higher grade levels, the quality of books read improves. Grade medians and grade percentile norms are given.—*L. M. McCabe* (Cambridge, Mass.).

1065. **Price, D. H., & Tiffin, J. Purdue vocational achievement tests: technical information in industrial mathematics.** Lafayette, Ind.: Purdue Univ., 1940. Pp. 8. Pkg. of 20 and manual of directions $1.00.—This test consists of 100 multiple choice problems.—*L. M. McCabe* (Cambridge, Mass.).

1066. **Raths, L. The Bureau program for 1939–40; division of accomplishment tests.** *Educ. Res. Bull., Ohio St. Univ.*, 1940, **19**, 422–424.—*M. V. Louden* (Pittsburgh).

1067. **Reeves, F. W. The occupational adjustment of youth.** Washington, D. C.: American Council on Education, 1940. Pp. 16. Gratis.—

The major findings of the American Youth Commission as reported by H. M. Bell under the title, Matching Youth and Jobs (see XV: 1017) are presented in brief form. Vocational guidance, agencies for such guidance, the relationships of guidance to community programs of occupational adjustment, and the place of research in effectively establishing the occupational adjustment of youth are discussed. —*W. E. Walton* (Nebraska).

1068. **Schneider, F. Students examine their professors.** Berkeley: Pestalozzi Press, 1939. Pp. 32. $0.35.—The primary thesis of this brochure is that the college is maintained for the benefit of the student, that the professors must work for the building of a better world by striving "for larger vision, greater personal courage, deeper devotion to the welfare of society beyond the boundaries of their subject, their nation, and their time." The writer describes the progress of a plan by which the students are able to comment on the presentation of their various courses. Sample questionnaires are given, together with some of the responses of students at the University of California.—*F. W. Finger* (Brown).

1069. **Semmelmeyer, M. Promoting readiness for reading and for growth in the interpretation of meaning.** *Suppl. educ. Monogr.*, 1940, No. 51, 56–62.—The neuro-linguistic and neuro-semantic maturity and general personality adjustment essential to a natural transition of the child from a nonreading to the reading stage has been demonstrated to be realizable by the application of Korzybski's extensional method to an experimental group of 6 children classified as definitely or probably not ready to read. Based on the technique of supplying such experiences and activities in which the children can find meaning and which have not been provided for because of greatly restricted opportunities, a program of extensional training was organized, centered about objects of the child's immediate environment and integrated with his interests. As a result of 10 weeks of such preparation reading activities were initiated with a minimum of difficulty, while increments in IQ of 11–16 points and substantial advances in reading readiness scores were recorded. Marked changes in personality in the direction of effective orientation and growth, and adjustment to the school were also reported.—*R. C. Strassburger* (St. Joseph's College for Women).

1070. **Smith, H. L., & Eaton, M. T. A study of the English usage, spelling, and vocabulary of 251 graduate students at Indiana University.** *Bull. Sch. Educ. Ind. Univ.*, 1940, **16**, No. 5. Pp. 71.—The A.C.E. cooperative English test was given to 251 graduate students in education. The scores were compared with those of the standardization group of college seniors and were analyzed for sex, race, age, and educational history differences. As a group the graduate students were poorer on usage and spelling than seniors but were superior in vocabulary. No sex differences were found; whites were superior to negroes; usage scores decreased with age; vocabulary scores increased and spelling scores were lower for the middle age groups. Type of undergraduate institution or number of hours of graduate work had no relation to the scores. Scores increased with higher scholarship as shown by grades. Subjects with teaching specialties in physical education and vocational studies had the lowest scores of all teaching groups.—*C. M. Louttit* (Indiana).

1071. **Stevason, C. C., McComb, H. G., & Tiffin, J. Purdue vocational achievement tests: technical information in machine shop.** Lafayette, Ind.: Purdue Univ., 1940. Pkg. of 20 and manual of directions $1.00.—Section 1 consists of a series of 90 multiple-choice statements (4 choices); section 2 calls for the identification of 15 pictured tools by number, on an alphabetical list of 25 tools; section 3 requires use identification of 10 illustrated tools on 14 number completion statements; section 4 requires the indication (by inserting corresponding numbers) of association between 10 pictured tools and 12 other tools or parts of tools commonly associated with them.—*L. M. McCabe* (Cambridge, Mass.).

1072. **Stevens, R. B. The attitudes of college women toward women's vocations.** *J. appl. Psychol.*, 1940, **24**, 615–627.—Women college students rated occupations according to their contribution to society, financial return, and social prestige. Differences in rating according to occupation of parents and place of residence are discussed. A correlation of .42 was found between probable and preferred vocation.—*E. E. Ghiselli* (California).

1073. **Thorndike, E. L. Vocational guidance as a function of public education.** *Occupations*, 1940, 19, 163–167.—This address, delivered in 1913, presents the author's view of the direction vocational guidance should take in its development, in relation to the school, the public, the child, industry, and the application of scientific techniques.—*G. S. Speer* (Central YMCA College).

1074. **Tiffin, J. Purdue vocational achievement tests: manual of directions, keys, and tentative norms.** Lafayette, Ind.: Purdue Univ., 1940. Pp. 19. $0.25.—This manual accompanies and describes 3 tests: technical information in electricity (see XV: 1041), technical information in machine shop (see XV: 1071), and technical information in industrial mathematics (see XV: 1065). Each test has been given to approximately 500 students, and tentative norms have been obtained. In relation to each test the author discusses the content, the validity, the reliability (.95 for electrical information, .97 for machine shop, and .89 for industrial mathematics), administration, and interpretations. Scoring keys are given, also percentile ranks and equivalent raw scores for groups of students with different amounts of instruction.—*M. L. McCabe* (Cambridge, Mass.).

1075. **Van Allyn, K. Van Allyn technique for vocational selection.** Los Angeles: National Institute of Vocational Research, 1940. Pp. 20. $0.50.—This manual gives directions for the use of

the Van Allyn technique for determining vocational aptitudes and in addition attempts to give a concise picture of the present status of the field of guidance and the value of this new technique.—*M. Keller* (Butler Hospital).

1076. [**Various.**] **Sex education: facts and attitudes.** (Rev. ed.) New York: Child Study Association of America, 1940. Pp. 64. $0.35.—This pamphlet, addressed to parents, offers some specific suggestions on day-to-day parent-child relationships, in addition to a consistent emphasis on "the psychic and emotional foundations of these relationships" and the "historical perspective in sex attitudes and ethics." 4 chapters are concerned with various aspects of the sex education of the young child at home; 1 chapter with sex education in the schools; 1 with masturbation; 1 with adolescence; and 1 with the cultural discipline of sex. Selected list of books on sex education.—*D. R. Riggs* (Burlington, Vt.).

1077. **Willey, R. deV. Social situations which lead the elementary school pupil to natural arithmetical experiences.** *Yearb. Calif. elem. Sch. Prin. Ass.*, 1940, **12**, 70–81.—77 classroom teachers noted the arithmetical problems arising in the child's school life which were not discussed during the periods assigned to instruction in arithmetic. 7 groupings of these problems or interests were made. Each group is classified according to topics and the number of problems by grades.—*P. S. de Q. Cabot* (Simmons).

1078. **Williamson, E. G. Coordination of student personnel services.** *J. consult. Psychol.*, 1940, **4**, 229–233.—Decentralization and coordination of staff functions rather than of administrative ones should characterize effective college personnel programs. 7 types of psychological services are reviewed, and various phases of the coordination of the psychological services in different colleges are outlined.—*P. S. de Q. Cabot* (Simmons).

1079. **Williamson, E. G., & Bordin, E. S. Evaluating counseling by means of a control-group experiment.** *Sch. & Soc.*, 1940, **52**, 434–440.—To 405 freshmen men and women who sought advice during 1933–1936 a control group was matched. One year after the counseling both groups were interviewed by a staff member who did not do the counseling, and their degree of adjustment was rated in 5 categories. The vocational adjustment of the control group was simularly rated with regard to consistency in carrying out their own choice made at entrance. The results show that 80% of the counseled group had achieved satisfactory adjustment as against 66% of the control group. Students tended to follow their own plans more consistently than those suggested by the counselor, but the results were apt to be less satisfactory. Counseled students obtained better grades than the noncounseled, which effect was evident in the first quarter and did not increase afterwards.—*M. Lee* (Chicago, Ill.).

1080. **Wood, B. D., & Flanagan, J. E.** [**Eds.**] **Cooperative achievement tests.** New York: American Council on Education, 1941. Pp. 48. $0.25.—Established in 1930, the Cooperative Test Service of the American Council on Education "attempts to help coordinate the testing and guidance resources of the country and to cooperate in every way possible with all those who are interested in adjusting educational procedures to the needs of individual students." The following section headings indicate the subjects discussed in this booklet: the purpose and functions of the Cooperative Test Service, suggested uses of Cooperative tests, aids to the interpretation of results, announcement of testing programs, information on ordering tests and price policy, description of high school and college tests (English, reading, foreign language, mathematics, science, social studies, general survey, and American Council Psychological Examinations).—*L. M. McCabe* (Cambridge, Mass.).

1081. **Wrenn, C. G. The evaluation of student personnel work: a critique of the "guidance movement."** *Sch. & Soc.*, 1940, **52**, 409–414.—Guidance, a term too widely and carelessly used, is frequently inefficient, according to evaluation studies. The latter are difficult to make because of the various personalities of students, the variety of counseling procedures, and the many factors which enter into any comprehensive criterion of adjustment. 3 types of research would be possible: a survey showing how far determined needs have been met by appropriate services; experimental cross-section approach to measure the effect of certain techniques in comparison with a control group; and the developmental method which would show how permanent changes are and measure total adjustment over a long period. 10 definite suggestions are made for studies to evaluate personnel work. Such investigations must precede wise development of this field which the writer believes should be an integrated phase of the total educational program.—*M. Lee* (Chicago, Ill.).

1082. **Wrenn, C. G. The evaluation of guidance practices.** *Stud. high. Educ., Purdue Univ.*, 1940, No. 37, 51–61.—The author outlines the needs and methods for real evaluation of guidance programs.—*C. M. Louttit* (Indiana).

[See also abstracts 714, 731, 906, 942, 1094.]

MENTAL TESTS

1083. [**Anon.**] **What are the actual weights of sub-tests in the determination of final ratings in civil service promotion examintations?** *Publ. Person. Quart., N. Y. C.*, 1940, **1**, 57–86.

1084. **Baranyai, E. A magasabbrendu ertelmesseg.** (Superior intelligence and its examination.) *Acta Univ. Szeged.*, 1938, No. 9. Pp. 302.—The author postulates two kinds of intelligence, ordinary and superior, which differ not in amount but in quality. She objects to taking an intelligence test originally intended for separating the feebleminded from the normal (Binet) and extrapolating it to measure superior intelligence. Superior intelligence must be conceived of, not as a greater amount of

ordinary intelligence but rather as a different kind of intelligence which creates new meaning from a given thought or text. All current intelligence tests are more or less inadequate as measures of this kind of superior intelligence. The author presents her own test, a series of questions for various age groups, designed to elicit individual ideas from the testee. The test is scored on quality of response which is judged from certain figure types into which typical sample answers are classified. From a comparison of the results of this test with those of a standard intelligence test, she shows that the two kinds of intelligence are sometimes mutually exclusive. English summary.—*R. K. Meister* (Mooseheart Laboratory for Child Research).

1085. **Benton, A. L., & Perry, J. D. A study of the predictive value of the Stanford Scientific Aptitude Test (Zyve).** *J. Psychol.*, 1940, **10**, 309–312.—Correlations of +.30 and +.37 were obtained between the scores made by 43 freshmen and sophomores of the College of the City of New York on the Stanford Scientific Aptitude Test and the grades achieved during their whole college career. The authors conclude that the findings indicate the test has a certain limited value in predicting the scholastic achievement of freshmen and sophomore college students.—*F. A. Mote, Jr.* (Connecticut).

1086. **Byrd, O. E. Byrd Health Attitude Scale.** Stanford, Calif.: Stanford University Press, 1940. $1.75, per pkg. of 25.—This health attitude scale is designed for use as a pre-test and end-test of a program of health instruction in the last 3 years of high school and at least the first 2 years of college. The 100 statements were selected from an original 400 administered to 1727 students, and are those on which the highest decile differed most from the lowest. No scoring key is needed as the 5 possible answers to each question carry individual weights ranging from 1 to 5 points.—*H. Beaumont* (Kentucky).

1087. **Davis, F. B. The interpretation of IQ's derived from the 1937 revision of the Stanford-Binet scales.** *J. appl. Psychol.*, 1940, **24**, 595–604.—Tables are presented which give equivalent values for IQ's for the 1916 and 1937 Stanford-Binet scales. —*E. E. Ghiselli* (California).

1088. **Martin, D. R. Mental tests in clinical practice.** *Aust. J. Psychol. Phil.*, 1940, **18**, 144–153. —Various standard tests, such as the Binet, the Otis tests, and certain achievement tests, are useful in the child guidance clinic. Their importance is largely supplementary and is limited by their possible accomplishments as defined by their intended purposes.—*H. D. Spoerl* (American International College).

1089. **Meier, N. C. The Meier art tests. I. Art judgment.** Iowa City: Bureau of Educational Research, Univ. Iowa, 1940. Pp. 100. $0.75; record sheets: $2.00 per 100; specimen set: $0.90.—This test is the successor to the Meier-Seashore Art Judgment Test. Of the 125 original items the 100 most discriminating have been selected, and of these 25 are given double weight in scoring. The old norms can be applied, and time is saved in administration. The score is found by use of a key.—*H. L. Ansbacher* (Brown).

1090. **Nelson, V., & Richards, T. W. Fels mental age values for Gesell schedules.** *Child Develpm.*, 1940, **11**, 153–157.—In a longitudinal study children were tested with the Gesell schedules at 6, 12, 18, and 24 months, with the Merrill-Palmer scale at 24, 30, 36, 42, and 54 months, and with the Stanford-Binet at 36, 48, and 60 months. The mean IQ of the subjects on the last two tests was 115 ± 15. On the assumption that the distribution of Gesell scores (total number of items passed) would be similar to the distribution obtained with the other tests the mean Gesell score was equated to the M. A. representative of an IQ of 115 and the Gesell M. A. sigma adjusted accordingly. Regression equations were then used to determine M. A. values for number of Gesell items passed at 4 age levels. These values are presented and the assumptions involved in the procedure discussed.—*C. N. Cofer* (U. S. Employment Service).

1091. **Wenrick, J. E. An enigma of the heredity-environment question.** *J. genet. Psychol.*, 1940, **57**, 193–198.—It is commonly assumed in constructing intelligence tests that: (1) the test must be relatively free of factual items learned in particular situations; (2) the items must differentiate the various age levels; (3) the items should show little variability and permit an arrangement such that mean MA approximates CA as closely as possible. The effect of these assumptions is to foster the use of items which would not reveal environmentally produced ability differences. Hence as instruments for studying the relative effects of heredity and environment on intelligence, the tests are heavily loaded in favor of heredity.—*D. K. Spelt* (Mississippi).

[See also abstract 987.]

CHILDHOOD AND ADOLESCENCE

1092. **Baker, E. M. Some social needs of the crippled child.** *Crippled Child*, 1940, **17**, 68–71.—The strong emotional attitudes created in the child and parent by the appearance and handicap of the physical deformity, the social isolation necessitated by surgical and medical treatment, the special educational measures required by the physical condition, the tendency of children to reject the crippled child, and the actual physical handicap, require a continuous, consistent, coordination of planning and activities by public and private health, welfare, and educational agencies.—*G. S. Speer* (Central YMCA College).

1093. **Bárcza, E. Szemléleten alapuló vizuális formaelemzési vizsgálatok középiskolás tanulokon.** (Visual analyses of forms by children between the ages of 10 and 18.) *Gyermek*, 1939, Nos. 1 & 2.—[Abstracted review; original not seen.] In an experiment with 3,936 boys and girls of 8 classes a composite form built by Huth on the principles of

Voigt was used to discover which attributes enter into determining the parts of the form, as well as the subjects of study requiring similar modes of visual thought. All children succeeded in determining the basic elements of the form, while the more complicated variations were found only by the advanced classes, boys doing better than girls. The tendency of noticing the margins first and the center later was not borne out; all 8 classes emphasized only the margins. Classes I and II chose forms of a definite optical unity; III and IV manifested an aptitude for combination; from V on, combinations predominated. The explanation for this phenomenon may be found in the eidetic studies of Jaensch.—*S. M. Strong* (Howard).

1094. **Bell, H. M. Unanswered questions of upper grade pupils.** *Yearb. Calif. elem. Sch. Prin. Ass.*, 1940, **12**, 29–35.—The interests of 405 pupils of both sexes from grades V–X were investigated by the questionnaire method. Pupils in grades V and VI showed a strong interest in nature, the physical world, science, and mechanics and very little interest in vocations, politics, religion, marriage, and sex. IXth and Xth grade pupils expressed the strongest interest in personal affairs, other people, religion, and politics and very little interest in school life, animals, nature, and the physical world. The interest preferences of the pupils in the remaining grades are given.—*P. S. de Q. Cabot* (Simmons).

1095. **Bender, L., & Spalding, M. A. Behavior problems in children from the homes of followers of Father Divine.** *J. nerv. ment. Dis.*, 1940, **91**, 460–472.—The teachings of the Father Divine movement include a denial of family ties and responsibility towards the family. To study the effect on the lives of the children of Divine's followers, 8 cases were reviewed, falling into 3 classifications. (1) Children accepted as members of a Kingdom, but later rejected and showing severe emotional conflict relative to the movement. (2) Children with behavior disorders due to the social and emotional insecurity because of the neglect of the parents. (3) Mentally defective or dull children neglected by the parents after joining the movement. The psychological factors apparent in the behavior of the first two groups are not important in the third group, where understanding is apparently not sufficiently high for a realization of the situation. The unique social position of these children was one of emotional neglect by the parents, physical neglect, intellectual insecurity over magic and heterosexuality, and deprivation of social enjoyments and contacts. Ways of dealing with the situation may be classified as attempts to understand and maintain relationships with the parents; to secure acceptance of as much as possible of the intellectual situation; and to increase the ability to stand the deprivation, intellectual doubt and rejection, and asocial acts.—*R. C. Moore* (Boston Psychopathic Hospital).

1096. **Benton, A. L. Mental development of prematurely born children.** *Amer. J. Orthopsychiat.*, 1940, **10**, 719–747.—This is a critical review of the literature on the concept and correlates of prematurity. The author discusses the developmental status in infancy, the course of development, the intelligence and its relation to birth weight, and the incidence of nervous traits in prematurely born children. Bibliography of 71 titles.—*R. E. Perl* (Jewish Board of Guardians).

1097. **Bowley, A. H. Child guidance service in war-time.** *Ment. Hlth, Lond.*, 1940, **1**, 76–81.

1098. **Britt, S. H. Let your child grow up.** *Think*, 1940, **6**, No. 10, 11; 30.—The writer contrasts the direct method of child training (rules and forcing) with the indirect method (suggestion and habit formation). The role of conditioning in the latter is emphasized. Of paramount importance in the training of the child is the example which the parents set him in the home.—*F. W. Finger* (Brown).

1099. **Brumbaugh, F., & Wilson, F. T. Children's laughter.** *J. genet. Psychol.*, 1940, **57**, 3–29.—A preliminary questionnaire administered to 800 pupils of grades III–VI provided the basis for a check list (127 items) designed to secure children's opinions about the humor of movie and radio comedians, comic-strips, behavior and appearance of children and adults, stories, poems, songs, jokes, and pictures. Data secured by submitting the list to an additional 800 pupils of the same grades were tabulated to show, by grade and sex, the children's preferences in most of the lists' categories. These results were compared with those from 100 men and women graduate students in education.—*D. K. Spelt* (Mississippi).

1100. **Bryan, H. S. A psychological clinic for children in connection with an open-air school.** *Med. Offr*, 1940, **63**, 199–200.

1101. **Conn, J. H. Children's reactions to the discovery of genital differences.** *Amer. J. Orthopsychiat.*, 1940, **10**, 747–755.—The author used the play interview as a means of observing children's sex knowledge and sex attitudes. 200 children ranging in age from 4 to 12 years were used as subjects. A large majority of the boys and girls responded to the first sight of genital differences without upset or disturbance. 17 children definitely felt that something was wrong with what they had seen. The author concludes that "healthy children are not as easily upset as some theorists would lead us to believe. The viewing of the genitals of other children or a glimpse of the parent undressed does not disturb the average child."—*R. E. Perl* (Jewish Board of Guardians).

1102. **Dalzell, I. J. Psychiatric social work with recessive adolescents.** *Canad. publ. Hlth J.*, 1940, **31**, 280–286.

1103. **Dean, R. B. [Ed.] Children's interests; elementary school level.** *Yearb. Calif. elem. Sch. Prin. Ass.*, 1940, **12**. Pp. 154.—This publication contains 20 articles written by university professors, school supervisors, principals, and teachers and covering the fields of arithmetic, reading, social studies, science, rhythmic expression, and radio interests all in relation to the interest level of the

elementary school child.—*P. S. de Q. Cabot* (Simmons).

1104. **Dennis, W. Infant reaction to restraint: an evaluation of Watson's theory.** *Trans. N. Y. Acad. Sci.*, 1940, **2**, 202–218.—A brief review of investigations concerning native emotions precedes the evaluation of Watson's theory. By acceptance of Dennis' conclusions the apparently-conflicting data can be reconciled. (1) The classic rage reaction, better classified as restlessness and crying, can be elicited in the neonate by any intense and enduring stimulation. (2) Restraint of movement, if accomplished without intense stimulation, need not lead to the negative response (e.g., in the prenatal situation and infant-binding). (3) At a later age any interference with a customary sequence of behavior or ongoing activity (frustration) elicits the negative reaction. Whether or not the restraint of movement or another factor is of a thwarting nature thus depends both upon the immediate state of the organism and upon learning. The investigator summarizes his position: "Reaction to frustration is not congenital or instinctive but it is autogenous" (learned behavior not socially transmitted).—*F. W. Finger* (Brown).

1105. **Dennis, W., & Russell, R. W. Piaget's questions applied to Zuni children.** *Child Develpm.*, 1940, **11**, 181–187.—Zuni children, aged 8–16 years, were examined with some of Piaget's methods. With respect to animism, the answers made by the Zunis were of the same types as those described by Piaget and by the writers in a study of white American children. The Zuni subjects, however, seemed to be somewhat retarded in their development in this area. Regarding ideas of consciousness, the organ of thought, and dream realism the results for the Zunis were the same as for the other groups. Fewer artificialistic origins were given in reply to questions about the origins of objects by the Zunis than by the white children. More cases must be studied before the differences noted can be considered significant. —*C. N. Cofer* (U. S. Employment Service).

1106. **Hamill, R. C. Enuresis.** *Dis. nerv. Syst.*, 1940, **1**, 272–276.—A short account of the neuromuscular mechanisms controlling urination is given. The dangers of emotional factors surrounding the problem and their effects on the child are discussed. Although there is no one specific cure for enuresis, it is most important for the child to know that he can control himself. Only if the child does not or cannot accept this idea is it desirable to attempt other measures to induce self-control.—*C. E. Henry* (Brown).

1107. **Hutchison, A. Motives of conduct in children.** (Foreword by Cyril Burt.) *London*: Jarrolds, 1940. 7*s.* 6*d.*

1108. **Jones, H. E. Resources for the consultant: observational methods in the study of individual development.** *J. consult. Psychol.*, 1940, **4**, 234–238. —The various methods of observation of boys and girls in the Adolescent Study are reported. Reference is made to the procedures in obtaining independent ratings, the necessity for providing new observational situations, and the program of mental and physical examinations. Part of a cumulative case record consisting of a profile of 2 social variables, prestige and sociability, is presented as an illustration.—*P. S. de Q. Cabot* (Simmons).

1109. **Katz, E. The relationship of IQ to height and weight from 3 to 5 years.** *J. genet. Psychol.*, 1940, **57**, 65–82.—112 boys and 117 girls were examined semi-annually from 3–5 years of age. Correlations were computed between height and (Stanford-Binet) IQ, and betweeen weight and IQ, using both the actual IQ's at each age and the median IQ of all examinations given during the study. Correlations at each age were significant for girls, nearly zero for boys. This sex difference was more marked when the median IQ was used.—*D. K. Spelt* (Mississippi).

1110. **Katz, R. Über motorische und geistige Umstellung bei Ausschaltung normaler Lösungsmethoden.** (Motor and mental adaptation when normal methods of solution are prohibited.) *Z. Kinderpsychiat.*, 1940, **7**, 17–26.—20 children varying in age from 4–14 years were asked to perform a variety of acts without the use of the bodily mechanism normally involved. The tasks set were (1) normally bimanual activities such as threading a needle or paring an apple to be carried out with one hand held behind the back, (2) performing simple activities when blindfolded or in a dark room, (3) attempting to carry out verbal instructions when hearing was prevented by bandaging the ears, (4) communicating simple ideas to other children when oral speech was prohibited, and (5) communicating ideas by means of pencil and paper to persons speaking a different language. Compensatory mechanisms appropriate to the needs of the situation were adopted by all the children, but the older and more intelligent subjects showed a greater variety of expedients than the younger ones or those of lower intelligence.—*F. L. Goodenough* (Minnesota).

1111. **Kerr, LeG. The adopted child.** *Med. Times, N. Y.*, 1940, **68**, 318–320.

1112. **Landreth, C. Consistency of four methods of measuring one type of sporadic emotional behavior (crying) in nursery school children.** *J. genet. Psychol.*, 1940, **57**, 101–117.—Data on crying obtained from 14 boys and 18 girls, 2 yrs. 8 mos. to 5 yrs. 2 mos. old, by 4 different observational methods were compared. The methods were: (1) time sampling in the nursery school for 7 weeks; (2) incident sampling in the nursery school for 8 weeks; (3) incident sampling at home for 5 weeks; and (4) ratings by a nursery school teacher. 2 observers showed 97.5% agreement in method 1 and 95.5% agreement in method 2. The ratings correlated .66 with all other school records. Agreement between home and school records was greater for the duration of crying than for its frequency.—*D. K. Spelt* (Mississippi).

1113. **Langford, W. S. The pediatrician and the emotionally disturbed child.** *Med. Clin. N. Amer.*,

1939, 23, 715 ff.—(*Child Develpm. Abstr.* XIV: 1405).

1114. **Levy, D. M. "Control-situation" studies of children's responses to the difference in genitalia.** *Amer. J. Orthopsychiat.*, 1940, **10,** 755–763.—The author gives data of his own to contradict Conn's conclusions (see XV: 1101). "The typical response of the child in our culture, when he becomes aware of the primary differences in sex anatomy, confirms the psychoanalyst's finding, namely, that castration anxiety is aroused in boys, and a feeling of envy with destructive impulse toward the penis in girls. The real problem is not, therefore, are such responses common, but under what conditions do they create neurotic symptoms."—*R. E. Perl* (Jewish Board of Guardians).

1115. **Lim, K. T., & Snyder, F. F. The response of the newborn to respiratory stimulants.** *Amer. J. Physiol.*, 1940, **129,** 405–406.—Abstract.

1116. **McGraw, M. B. Signals of growth.** *Child Study*, 1940, **18,** 8–10.—Investigators of childhood development have come to realize that chronological or mental age norms for the appearance of certain behavior patterns must be discarded in the consideration of the individual case. Methods of management should be altered in accord with the child's growth and development; signals for these changes can be detected in the behavior of the child. "The obligation of future research workers in child development is to point the way so that parents and teachers may be better enabled to detect and interpret these behavior signals." Shifting of the child's attention to new phases of response makes understandable regression in such problems as toilet training and feeding.—*F. W. Finger* (Brown).

1117. **Melbo, I. R. A review of the literature on children's interests.** *Yearb. Calif. elem. Sch. Prin. Ass.*, 1940, **12,** 6–22.—American and foreign research studies and writings during 1930–40 are reported. The majority of the 362 separate publications are surveyed according to: identification of children's interest; utilization of interests in the curriculum; and the psychology of interests. The major erroneous assumption of most investigators is that "children have native interests in specific patterns."—*P. S. de Q. Cabot* (Simmons).

1118. **Meyer, E. Comprehension of spatial relations in pre-school children.** *J. genet. Psychol.*, 1940, **57,** 119–151.—Using 63 children 18 mos. to 5½ yrs. old, the author studied the development of the comprehension of spatial relations between objects by tests involving (1) fitting wooden forms together and (2) understanding the result of rotating a pivoted horizontal bar about its axis. Comprehension of their own shifts of position was tested by requiring the children to solve problems in which a desired object could be secured only by their changing their own position or part of the equipment. The responses were classified to show 3 developmental stages.—*D. K. Spelt* (Mississippi).

1119. **Nestor, I. M. Examenul evoluţiei psihologice a copilului de la una zi la şase ani.** (Investigation of the psychological development of the child from one day to six years.) Bucureşti: Societatea Română de Cercetări Psihologica, 1940. Pp. 160. Lei 120.—This volume interprets and summarizes the original work by Charlotte Bühler and Hildegard Hetzer (see VII: 5562). The methodological criterion of the various tests considers the development from the stage of sensorial receptivity to that of intellectual creativity. The tests correspond to concrete and ordinary daily movements and reactions of the child at the various age levels. A stage of development is not considered symptomatic unless it has been observed in 66% of the cases. 6 fundamental directions of human conduct are distinguished: (1) sensorial receptivity, (2) body movements and control, (3) sociability including language, (4) learning including imitation, (5) control over things, and (6) intellectual creativity. French summary.—*S. M. Strong* (Howard).

1120. **Pacella, B. L., & Barrera, S. E. Postural reflexes and grasp phenomena in infants.** *J. Neurophysiol.*, 1940, **3,** 213–218.—The asymmetry of tonic neck reflexes was observed in response to rotation of the head in 64 of 70 newborn, premature infants and in 16 of 30 newborn, full-term infants. The dominant pattern of the asymmetric tonic neck reflex when the head was rotated to the right consisted of flexion of the left leg and toes and extension of the right leg and toes. The grasp phenomena in the toes was not always found. The authors conclude that there is a relationship between the tonic neck reflex mechanism and the grasp reflex mechanism.—*D. B. Lindsley* (Brown).

1121. **Page, J. D. The effect of nursery school attendance upon subsequent IQ.** *J. Psychol.*, 1940, **10,** 221–230.—A group of 72 children from kindergarten to Vth grade who had attended nursery school for a period from 125 to 525 days were given the Stanford-Binet, form L; their IQ's were compared with those of their adjacent siblings who had received no nursery school training. A control group of 100 that had not attended nursery school but was comparable with respect to age and socio-economic status was also tested and compared with the nursery school group. No significant differences were found between the children who had received nursery school training and their siblings who had not.—*F. A. Mote, Jr.* (Connecticut).

1122. **Quinan, C. Kinetic aspects of growth: a graphic study.** *J. genet. Psychol.*, 1940, **57,** 199–205.—The performance of 100 college men and 100 orphan girls, 8–17 years old, in copying a standard sentence in longhand was timed with a stopwatch. Mean time for the men was 37.8 secs. (range: 26–59 secs.). Mean time for the girls arranged in age groups decreased continuously from 253.0 secs. at 8 to 46.6 secs. at 17, except for an increase at 14. From 13 on, the times are relatively stable and this is the age level "which marks also the functional maturity both of the central nervous system and of the reproductive organs."—*D. K. Spelt* (Mississippi).

1123. **Rich, G. J. Treatment of enuresis by the conditioning technique.** *Dis. nerv. Syst.*, 1940, **1**, 382.—Abstract.

1124. **Russell, R. W. Studies in animism. IV. An investigation of some concepts allied to animism.** *J. genet. Psychol.*, 1940, **57**, 83–91.—335 children in grades I–VII, who had previously been questioned about the animation of various objects, were asked whether these same things were capable of knowing and feeling. Like the earlier responses, these were classified into 4 stages. The relationship between the developmental stages of animistic and knowing concepts was expressed by a contingency coefficient of .76; that between animistic and feeling concepts by a coefficient of .73. At all MA's above 7 years the allied concepts were better developed than the animistic.—*D. K. Spelt* (Mississippi).

1125. **Sanders, H. Growing up.** *Ment. Hyg. Rev.*, 1940, **1**, 63–67.—A discussion of the adolescent's problems in growing up.—*C. M. Louttit* (Indiana).

1126. **Schilder, P., & Bender, L. Impulsions: specific disorder of the behavior of children.** *Arch. Neurol. Psychiat., Chicago*, 1940, **43**, 990–1008.—The symptomology of impulsions comprises: continuous looking at and handling of a specific object; drawings of the object; preoccupation with the object in fantasies or thoughts; excessive walking; counting or preoccupation with numbers and space. The subjects insist on immediate satisfaction of their wishes. They are stubborn, show hypochondriachal preoccupations, and may use asocial means to satisfy their strong desires.—*W. J. Brogden* (Wisconsin).

1127. **Schmidt, F. A mai léany.** (The girl of today.) *Gyermak*, 1939, Nos. 1 & 2.—[Abstracted review; original not seen.] To determine the types of girls and their major orientations in present-day society, the following method was employed: Some 25 exciting words (family, sport, science, theatre, boy, marriage, fashion, old maid, the goal of women, etc.) were submitted to 1566 girls between the ages of 13–20. The responses of the various age groups indicate that the majority of girls have a bad impression of boys. The number of those who do not know nor are interested in boys decreases with advance in age. At the age of 13, 17% of the girls do not know boys, at 15, 6%, and at 20, 2%. The desire of girls in relation to boys increases with advance in age; at 13, 9% and at 20, 24% gave answers indicating such desire. At the age of 14 some indicated that the girl is also to be held responsible for the behavior of the boy towards the girl.—*S. M. Strong* (Howard).

1128. **Speer, G. S. The intelligence of foster children.** *J. genet. Psychol.*, 1940, **57**, 49–55.—184 children from economically underprivileged homes, placed in foster homes definitely superior to their own, were classified according to age at placement, hence approximately according to length of residence in poor environment. Their initial IQ's showed continuous decrease from the youngest group (0–2 years) to the oldest (12–15 years), especially in the case of children of feeble-minded mothers. A group of 59 cases re-examined after placement showed median IQ gains of 5.1 points.—*D. K. Spelt* (Mississippi).

1129. **Stern, W. Das Kind innerhalb der Familie.** (The child within the family.) *Z. Kinderpsychiat.*, 1940, **7**, 6–16.—A translation by Clara Stern of an address given in English by her husband before the Duke University Chapter of the National Honory Social Science Fraternity shortly before his death. In this paper Stern considers a number of special problems of family relationships as they were observed in his work as Director of the Hamburg Institute of Psychology. He questions the validity of many of the psychoanalytical interpretations of child behavior and considers that more valid explanation may be found by considering the impact of culture upon the natural impulses of a growing organism. Because of the paramount importance of love in the life of the child, the intimate relationships of family life often produce tensions when love for one impinges upon love for another or upon the child's own feeling of self-esteem or of priority right. The special problems of first-born and last-born children, of twins, of children from broken homes, and of illegitimate children are cited as examples.—*F. L. Goodenough* (Minnesota).

1130. **Szteinberg, B. Jak dzieci oceniaja klamstwo.** (How children regard lies.) *Psychol. wychow.*, 1938, **11**, No. 4, 9.—[Abstracted review; original not seen.] By means of a group questionnaire, 112 Polish children aged 6–15 years were asked to express their attitudes toward lying. A second group numbering 455 children between the ages of 10–14 years were questioned individually. It was found that the 10-year-olds usually condemned lying without qualification; that by the age of 11 there was a tendency to justify the lie if it served a useful purpose; while the older children were inclined to the opinion that lies are warranted only when the purpose is altruistic.—*F. L. Goodenough* (Minnesota).

1131. **Werner, H. Perception of spatial relationship in mentally deficient children.** *J. genet. Psychol.*, 1940, **57**, 93–100.—This study employed a vertical black screen with a horizontal row of 4 white glass windows, 1 inch square. 180 moron and borderline defective boys (MA's: 6–12 years) were required (1) to tap the squares in the same order as the experimentor had done; (2) to tap the squares in the order in which they were successively lighted by small lamps behind the glass. In both series performance improved with increasing MA; the light series yielded the greater score range, because performance was worse for MA's below 8 years, better for MA's of 9 years and above. Boys with good arithmetic achievement records did better than those with poor records on the light but not on the tap series.—*D. K. Spelt* (Mississippi).

[**See also abstracts 731, 761, 770, 776, 871, 954, 984, 1058, 1088.**]